ARCHAEOLOGICAL RESOURCES IN THE MARITIMES

1980

Dr. C. J. TURNBULL, editor

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the council of
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ARCHAEOLOGICAL RESOURCES IN THE MARITIMES: 1980

Dr. C. J. Turnbull, editor

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LIST OF CONTRIBUTORS

Allen, Patricia M., Archaeologist, Archaeology Branch, Historical Resources Administration, Fredericton, New Brunswick.

Davis, Stephen A., Assistant Professor, St. Mary's University, Halifax, Nova Scotia.

Keenlyside, Dr. David L., Atlantic Provinces Archaeologist, Archaeological Survey of Canada, National Museum of Man, Ottawa.

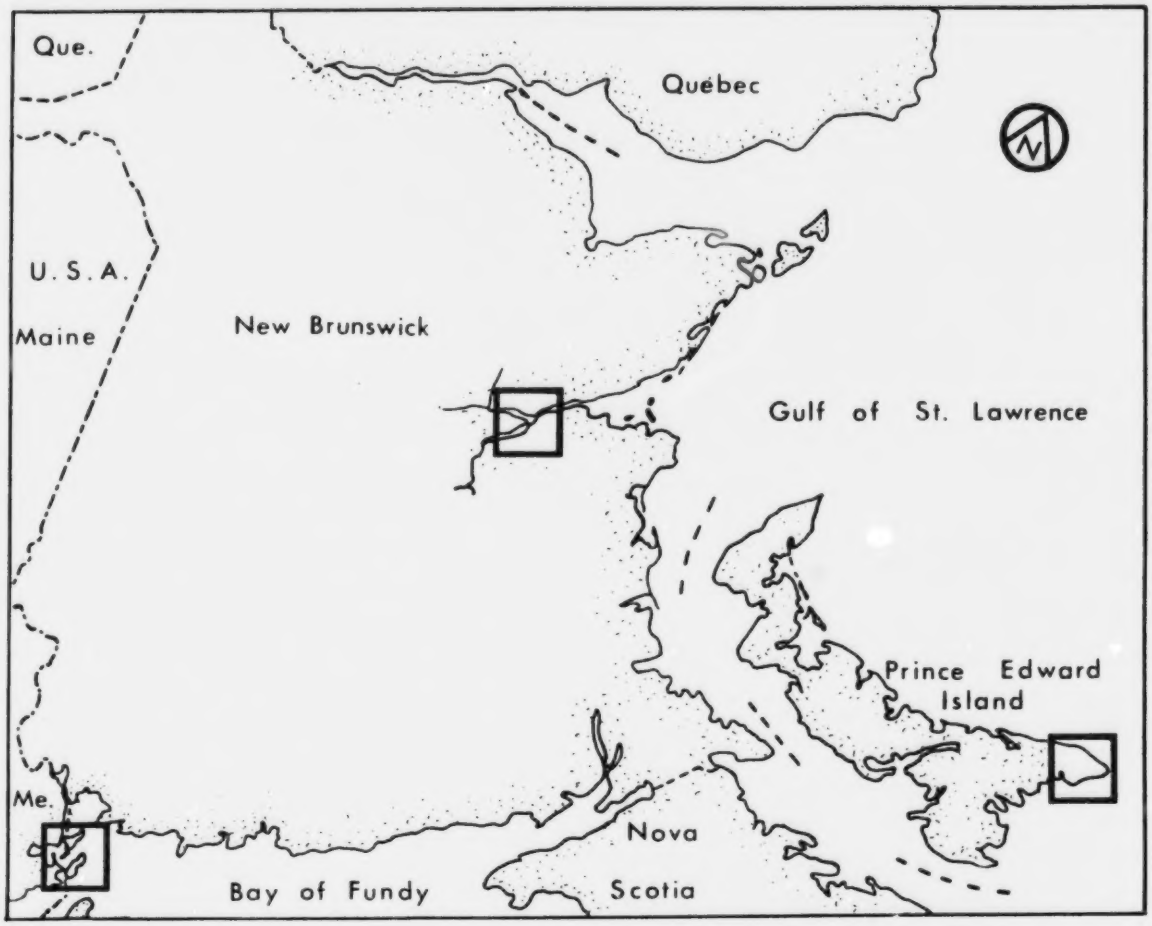
Turnbull, Dr. Christopher, Provincial Archaeologist, Archaeology Branch, Historical Resources Administration, Fredericton, New Brunswick.

Forward

This publication is fifth in a series devoted to the interests of the Council of Maritime Premier's Maritime Committee on Archaeological Cooperation (MCAC) and is a reflection of the committee's main concern - the erosion of the Maritime Provinces' coastal heritage resources. The committee first met in 1977 with this obvious but unquantified loss of sites as its major focus. In 1978 through a fortuitous circumstance, Bjorn Simonsen, then Provincial Archaeologist of British Columbia, was able to spend six months on designing a response to the problem (1979). While no large programme has resulted from the study, the MCAC has been slowly but steadily accumulating information from each of the Maritime Provinces. In 1979 a survey (Davis & Christianson 1980) was sponsored jointly by MCAC and the Archaeological Survey of Canada, National Museum of Man.

While the projects reported here were not directly sponsored through the MCAC, they were certainly undertaken with the MCAC study in mind. New Brunswick Historical Resources Administration sponsored two coastal surveys, and the Archaeological Survey of Canada sponsored the first major (prehistoric) archaeological research on Prince Edward Island.

Previous research in Charlotte County, New Brunswick dates back to 1869 and is probably the first fieldwork in the Maritimes (Baird 1881). Since then the region's shell middens have been the subject of a number of examinations (Stoddard 1950, Pearson 1970, Sanger 1971); most of this research has been directed to the mainland areas where



Archaeological Projects in the Maritimes in 1980

large winter village sites are found (Davis 1978). This summer's activities began work on the off-shore islands where a new concentration of sites have been discovered.

The Miramichi estuary survey is an extension of the work Historical Resources has been undertaking in the Red Bank/Sunny Corner locality since 1975 (Turnbull 1976, Allen 1981). A deeply stratified site - the Oxbow, is forming the basis for a detailed look at the culture history of the Maritime region during the last three thousand years. The 1980 survey expands the research out of the Red Bank area into adjacent localities within the estuary of the Miramichi River basin.

The third report included here is a part of the Archaeological Survey of Canada's research interests in the southern Gulf of St. Lawrence (Keenlyside 1976). Prince Edward Island has never been the focus of a major prehistoric research project before. Sites were recorded in the earlier part of this century, but the fieldwork in 1980 represents the most that has ever been done with the Province's native archaeological heritage. There is obviously something still to be learned of the Indian occupation of the island inspite of the neglect and obvious loss of coastal sites.

In terms of the information being gathered for the MCAC study of the Maritime Province's erosion loss of coastal sites, the magnitude of the problem is becoming exceedingly clear - the attrition of sites is at a truely horrendous rate. The survey in southern New Brunswick found only one prehistoric site that was not eroding; within the enclosed Miramichi estuary the situation is just as serious.

The recent study for the United States Nuclear Regulatary Commission (Arthur Speiss, pers. comm.) estimates the rate of coastal submergence of the Lubec-Eastport area in Passamaquoddy Bay in excess of 9 mm/year. Over the 2500 years of known prehistory in the Bay this would work out to a whopping 22.5 m of submergence. While the rate is undoubtedly not constant through time and this figure unbelievable, the figures do indicate the drama of the situation. It is obvious that this problem for archaeology can not be put off. One often gets the impression of archaeological survey in our much built up country that a survey conducted a few years earlier would have found many more sites intact. Our present information from the Maritime Provinces suggests that NOW is the time to undertake archaeological research on the coast. Out of all the sites found during the 1980 field season, only a minute percentage were unaffected by coastal erosion. The contributions of this region of Canada to our heritage or to the world wide study of maritime adaptions must be made in the very near future - the sites will not wait.

Dr. Chris Turnbull
Chairman
Maritime Committe on Archaeological Cooperation
Fredericton, New Brunswick

September 1981

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Coastal Erosion and Archaeological Sites in Charlotte County, New Brunswick - 1980 Survey

by Stephen A. Davis

Introduction

The objective of this survey was simply to locate as many archaeological sites as possible with the given time. The study area chosen was thought to be "productive" of sites in line with the results of the 1979 MCAC survey (Davis, Christianson 1980). Given the very limited resources of the MCAC, it was deemed more useful to concentrate efforts in known areas of site concentrations to be able to gather the greatest volume of information. In addition the survey was to further refine the Maritime Archaeological Resources Inventory form. This format records a great deal of information about each site including detailed location and site description, and offers a tentative evaluation of the site's present condition. The survey was sponsored by New Brunswick's Historical Resources Administration; Albert Ferguson, curatorial assistant in archaeology, assisted in the project.

Methodology

The Deer Island-Campobello Archipelago, is located at the western mouth of the Bay of Fundy on the Maine-New Brunswick border; the islands lie in Charlotte County, New Brunswick. The study area includes two principle islands as well as over forty smaller islands which lie between Deer Island and Campobello. These smaller islands run in a northwesterly direction from Head Harbour Passage along the shore of

Deer Island towards Letete on the mainland of New Brunswick. Fig. 3 lists the islands which were surveyed by walking or inspected by cruising the shoreline in a boat.

The topography of the study area is diverse in that the shorelines are broken by numerous bays, coves, and inlets. The predominant coast type is represented by various sized cliffs ranging from a few metres to nearly 100 metres in height. This characteristic made it difficult and often dangerous to walk the entire shoreline of the area even at extreme low tide. It was because of this that two survey strategies were employed.

The survey team consisted of two persons equipped with a truck and 15' aluminum boat powered by a ten horsepower motor. The intial survey strategy was a familarization process of the larger islands noting the villages and harbours. This was deemed necessary so as to be able to identify specific areas and natural features when discussions were conducted with local residents.

Actual site surveys were conducted mostly on foot. An area would be selected each day which allowed two pick up points, one team member was dropped off while the other would find a convenient location for parking the vehicle. The first member would survey towards the vehicle while the other continued in the same direction to be picked up further along the coast. This procedure was effective for locating sites but proved time consuming for recording sites with the new detailed forms. It was therefore decided that sites when encountered would simply have their locational data noted as a first step. When a series of sites

was found the team would return to the sites to complete all inventory data.

The rugged coastline within the study area provided situations which at times were too dangerous to survey on foot. These areas where left until the weather permitted a reconnaissance from the water. The boat was used to patrol the shoreline slowly while binoculars were used to scan the erosional features. When small isolated beaches were encountered the boat was beached and the area was walked. These methods were applied to the two larger islands, Campobello and Deer Island. The smaller islands were also surveyed using the boat for access and subsequently walking their circumference. As mentioned, when a site was first located it was not recorded in detail until both team members were present.

The recording procedure involved the use of the New Brunswick Historical Resources Administration format as well as the Maritime Archaeological Resources Inventory (M.A.R.I.) forms. This written documentation was supplemented with photographs taken with a Polaroid, 2¼ Yashica and a 35 mm camera. A complete descriptive set of data was collected for each site.

For the most part the sites had been damaged through coastal erosion so it was not necessary to test excavate them to gather information on the cultural deposit. The erosional surfaces also provided artifactual evidence which allowed an assignment of the relative age of the deposit. A summary of sites found is presented in fig.4; a summary of the artifacts is to be found in fig. 6.

Discussion

It is readily apparent from fig. 4 that the Deer Island-Campobello area is suffering the same major problem as the rest of coastline of the Maritime Provinces, namely shoreline erosion. With one exception (BgDr38) all of the prehistoric sites recorded during the survey are to some degree being damaged by erosion. The effects that this natural phenomenon have on each site varies as does the rate of erosion.

It is thought from this survey that many of the sites will have at least twenty-five percent of their surface area destroyed within the next decade; this observation is based on interviews with local residents. For example, Mr. Stuart Hanes, the owner of BgDr35, feels that approximately one half a metre is lost each year from this site. He also reported that severe storms increase this rate.

It is believed that the lack of sites on Campobello is directly related to its high rate of erosion. A site recorded in 1950 (north of Wilson's beach) could not be located; the conclusion being drawn that is has been completely washed away.

The survey of Campobello was successful in locating a second site on the Island; this one was also listed on records of the R.S. Peabody Survey (Stoddard 1950). This site (BfDr3) is being destroyed by erosion and tree falls. The question that must be answered is whether or not this site should be given special attention; that is, excavated immediately. It is the only known remaining prehistoric site on the Island and it is located in the Roosevelt International Park Conservation area. It is therefore up to the relevant authorities to decide to have it protected

by anti-erosion devices such as the gabion structure built by Historical Resources Administration at Minister's Island or to have the site excavated by a professional team.

The basic issue in these management questions remains for archaeology of the Maritimes - which sites do we excavate and why? Unfortunately, because of the lack of qualified people in the area and the apparent disinterest by outside scholars, the sites presently known have not been and/or cannot be ranked in any order of importance. In fact, the majority of known sites have never been fully tested to ascertain what their potential contributions are to an understanding of the past. It is for this reason that this present survey must be followed up with a site testing programme but one within a research framework. It is also necessary because of the lack of qualified manpower, that an attempt be made to rank sites in order of importance by the survey team.

Fig. 4 lists the prehistoric sites found in the Deer Island-Campobello survey, the destructive agents acting on these sites, their potential damage rating, and action recommended. Potential damage rating is an estimate of the time remaining before a site is further seriously damaged by natural or cultural agents. Serious damage has been for this study arbitrarily defined as destruction of 25 per cent of the present site area and the time rates may be somewhat pessimistic. The following code was used in this evaluation:

1. less than 2 years
2. 2-5 years

3. 5-10 years

4. no foreseeable threat

5. cannot be estimated

The action recommended category is represented by two possible test situations: Limited testing (L.T.) and Extensive testing (E.T.). The basis of their assignment is the belief that at least 1% of each site should be tested; this is an arbitrary level of sampling. The recommended test procedure is that one metre square pits be used. Limited testing represents 5 or less pits per site to reach the 1% figure; extensive testing, six or more pits. Given the estimated site sizes as being reasonably accurate approximately 100 test pits are required to gain a minimum amount of data on which to offer some evaluation and ranking these of archaeological sites found this summer.

Past experience with shell middens suggest that one person could excavate a single test pit per day. This includes the essential tasks of establishment of a permanent datum point, placement of a grid over the entire site, an accurate map of the site, and the recording of artifacts and features within each test location. Therefore a testing team of four people is recommended for the area allowing six weeks to complete the project. This summer's experience showed that weather will seriously effect the progress of the work. This is especially true for the testing of the sites located on the islands; the heavy fog, poor visibility during rain and the often treacherous currents in the area present dangerous situations. Days on which testing could not be done should be spent cataloguing specimens found. The field

work will have to be supplemented by a minimum of two weeks in the laboratory completing tasks such as the cataloguing and completion of reports.

Although the survey team performed minimal testing a number of sites found this summer can be singled out for special mention.

BgDr38

This site is exceptional in that it has not been disturbed by natural agents such as shoreline erosion. The site is situated approximately 10.00 metres inland and 4.00 metres above present sea level. It is the only site of this size which has been found in such preserved conditions anywhere in the Maritime Provinces. Unfortunately, the close proximity of a historic cellar and the presence of crushed marine shells on the surface suggests that the site has been ploughed. This site must be extensively tested to ascertain the amount of damage resulting from this activity. If the testing proves favourable in showing minimal damage and good cultural content then this site should be protected under the New Brunswick Historic Site Protection's Act.

BgDr39 fig. 7

Although this site has been extensively damaged by erosion and road construction, it remains as the largest shell midden found by the survey. This site is in an advantageous position to present archaeological methods to the general public. It is one of the few sites located on government owned property and is easily accessible.

The heavy tourist and local traffic which waits at this location for the ferry to the mainland represents a steady audience. Although the opportunity exists to present an active project with considerable popular appeal it should not be considered on these merits only; it should be run in concert with an overall programme of research in the area.

BfDr8 fig. 8

This site is clearly the most intri uing encountered during the summer in terms of research interest. While time did not permit testing of this site to define any indication of a pit feature, the circumstances of five well made celts appearing in a tight cluster is highly suggestive of deliberate placement. This type of concentration is normally a pattern reflected in burials. The attributes inherent in these specimens suggest that they belong to a "premidden" people known along the eastern seaboard as the Susquehanna Tradition. This cultural tradition is represented in New Brunswick at the Portland Point site in Saint John, excavated in the mid-fifties by Russel Harper (1956). More recent burials have been excavated in Maine at the Young site (David Sanger, perscom.) and the Turner Farm site (Bourque 1976:21-31). The site on Marble Island would provide a continuity of research linking the most northerly site (Portland Point) with similar finds in Maine and further to the south along the eastern seaboard.

It is recommended that this location be given the highest priority of all the sites encountered. The preliminary analysis suggests that it represents the burial place of a poorly known group which occupied New Brunswick some three thousand years ago.

BgDr47

This site is a very large shell midden on Parker Island. Its unique features which warrant special mention are the presence of house pits eroding from the bank. These house pits are not, in themselves, an unusual part of the prehistory of Passamaquoddy Bay having been recorded at Sand Point and Ministers Island (Sanger 1971). They have also been excavated at the Teacher's Cove site where they were determined to be representative of a winter occupation of the coast (Davis 1978).

This site provides the opportunity of a re-evaluation of these features after a ten year laps in research on them in New Brunswick. The importance of these features in the overall prehistory of the region is exemplified by the fact that a major conference will soon be held in the eastern states to deal specifically with coastal house pits. Unfortunately Canada will not be able to contribute to this conference due to our neglect of these features. It is hoped that this situation could be remedied with an excavation programme at Parker Island.

These four sites are all included in the testing programme outlined previously; however, unique features at each of them require more attention than is suggested in the testing project. They each require more time and professional competence and backup than would be available

from a test crew. It is therefore recommended that a second team be formed to deal specifically with them. This crew would consist of two individuals who would oversee the work at BgDr39 and would test and evaluate BgDr38. They would also be responsible for a complete test and evaluation of the burial site and the recovery of the eroding house pits on Parker Island.

As mentioned a number of times the most outstanding problem we have in the Maritimes is a lack of continuity in areal studies. Each year an area receives a preliminary going over with very little follow up. It is for this reason that the test crews and excavation teams are recommended for the Deer Island-Campobello region. It is further recommended that an active survey programme continue in this part of the Province.

The site distribution maps show that the majority of sites found this summer cluster to the north end of the study area. This suggests that more sites should be found along the shore and on the islands of Back Bay. The records at Historical Resources show that five known sites exist in this location; it is anticipated that many more could be recorded using the methods employed in 1980. It is therefore recommended that the team assigned to the evaluation of the four special sites also be used to survey the Back Bay area.

One of the weaknesses inherent in archaeological surveys in the Maritimes is the lack of qualified people trained in both aspects of this regions archaeological past - namely the prehistoric and historic periods. This report has concentrated on the former only because the

participants have been trained in this direction. The team did note and record the location of historic sites; however, the complexities of such sites and the time required in research has not permitted a thorough evaluation of their significance. For these reasons it is suggested that future surveys in the area have either a trained historian or archival personnel acting as part of the project. These people could research the locations of the earliest historic occupations within the study area providing background material for the field crews. In approaching a study area in this fashion a complete inventory is possible given the limited personnel at our disposal.

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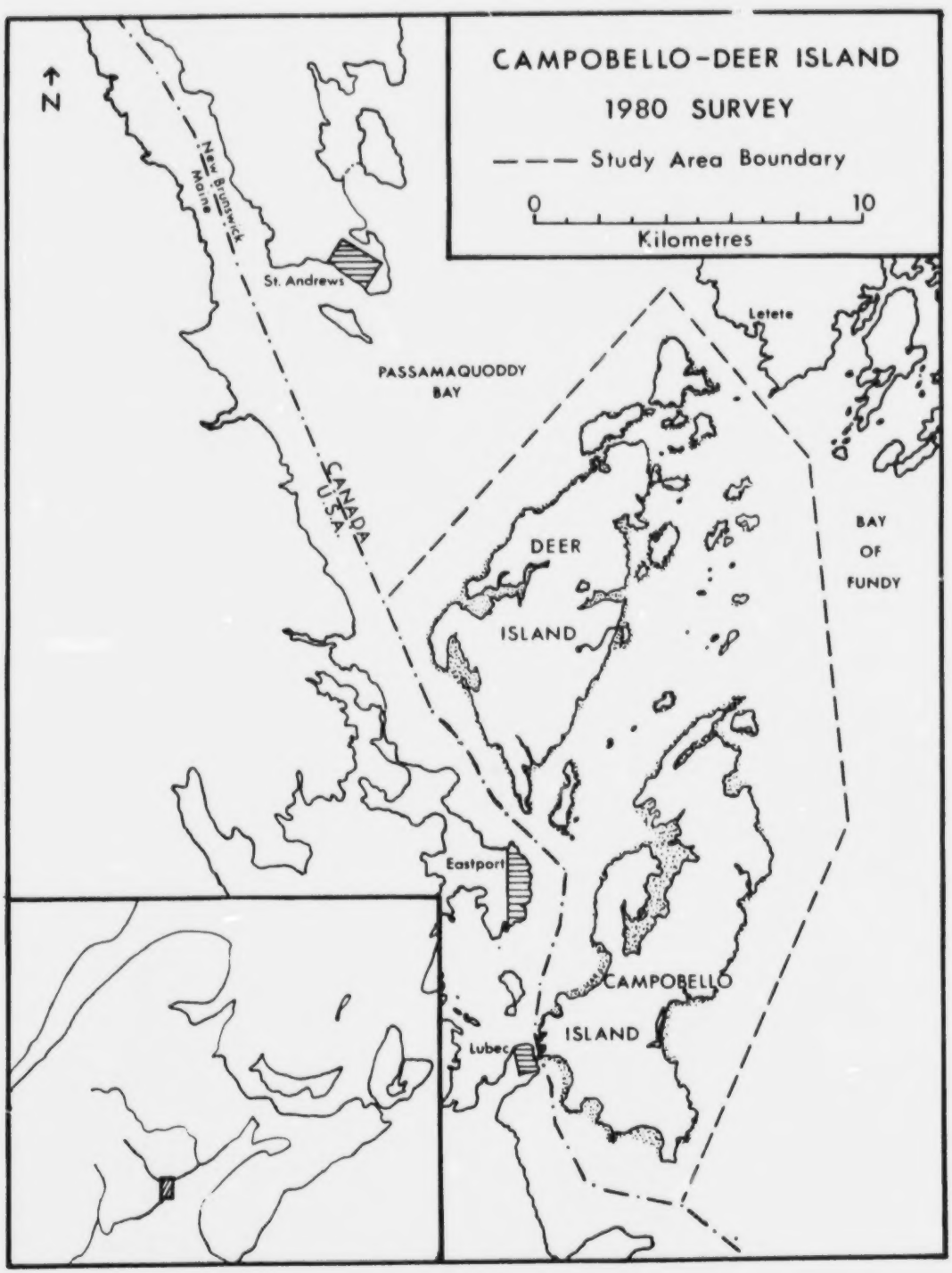

figure 1: Survey area in Charlotte County, New Brunswick

figure 2: Site locations in Campobello-Deer Island Area

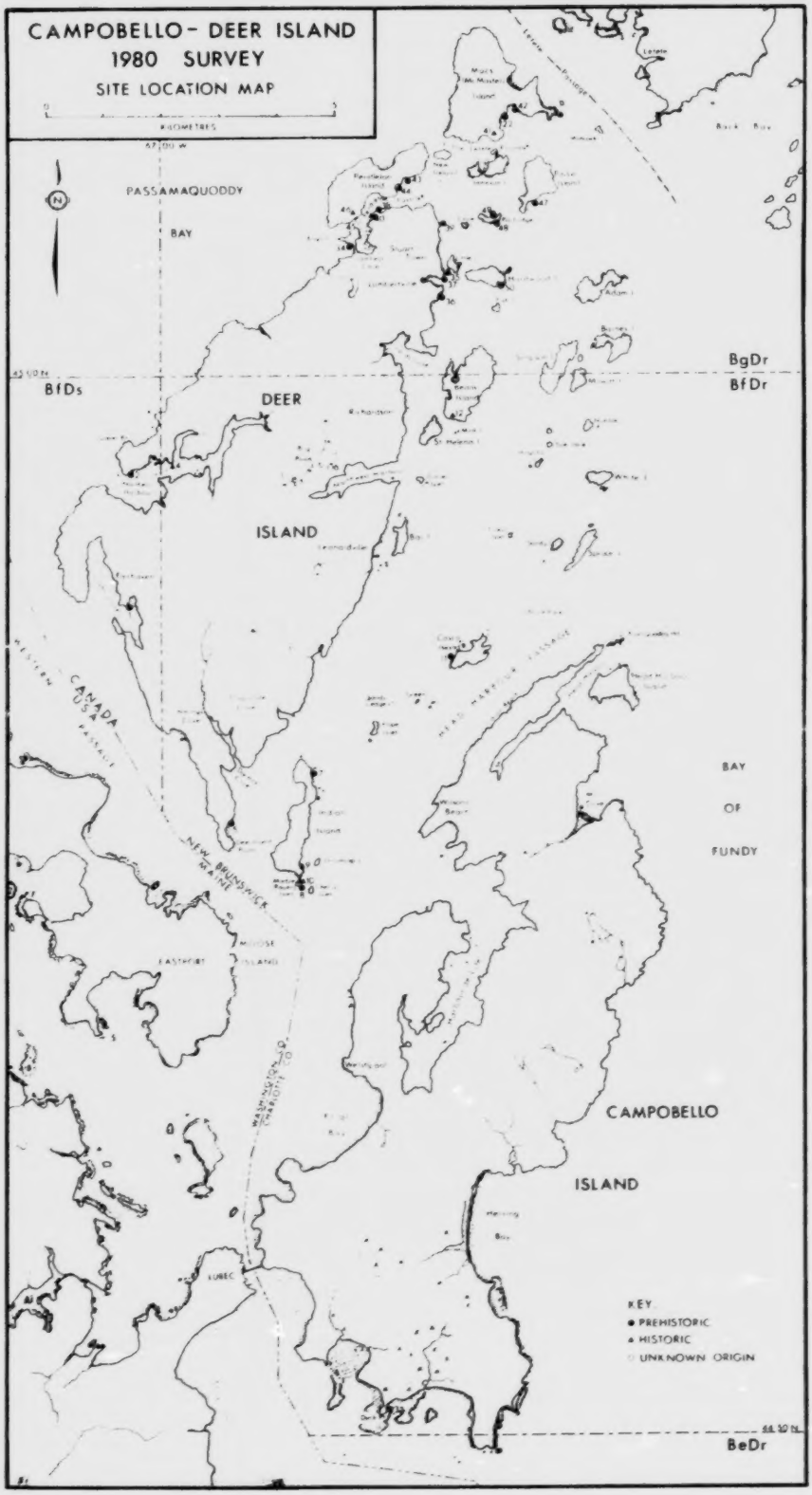
CAMPOBELLO - DEER ISLAND
1980 SURVEY
SITE LOCATION MAP
KILOMETRES
PASSAMAQUODDY
BAY
BgDr
BfDr
BfDs
DEER
ISLAND
CANADA
USA
BAY
OF
FUNDY
CAMPOBELLO
ISLAND
KEY
PREHISTORIC
HISTORIC
UNKNOWN ORIGIN
BeDr

figure 3: Principal Islands of the Deer Island - Campobello Archipelago showing estimated greatest lengths and widths

Island	Est. Greatest Length (Km)	Est. Greatest Width (Km)
1. Dear	11.90	5.63
2. McMaster	2.01	2.01
3. Pendleton	2.09	0.96
4. Jamieson	0.80	0.40
5. Parker	0.96	0.64
6. Mohawk	0.16	0.16
7. Partridge	0.40	0.16
8. Hardwood	0.64	0.32
9. Adam	0.96	0.40
10. Barnes	0.64	0.48
11. Simpson	0.96	0.32
12. Mowat	0.16	0.16
13. Bean	1.28	0.80
14. St. Helena	0.40	0.16
15. Nubble	less than 0.20	less than 0.20
16. Spectacle	less than 0.20	less than 0.20
17. Hospital	less than 0.20	less than 0.20
18. Tinker	less than 0.20	less than 0.20
19. White Horse	0.40	less than 0.20
20. White	0.40	0.32
21. Spruce	0.96	0.16
22. Sandy	0.40	0.16
23. Casco	0.80	0.40
24. Green	less than 0.20	less than 0.20
25. Pope	less than 0.20	less than 0.20
26. Thrumcap	less than 0.20	less than 0.20
27. Cherry	less than 0.20	less than 0.20
28. Marble	less than 0.20	less than 0.20
29. Dinner	less than 0.20	less than 0.20
30. Indian	2.01	0.40
31. Bar	0.64	0.24
32. Campobello	12.87	4.82

figure 4: Summary of Archaeological Sites, Charlotte County, New Brunswick 1980

Site No	Kind	Primary/ Artifact Location	Dimension L	W	Area	Eroding	Modern Disturbance	Age	Remarks
BfDr3	Domestic	P	13	9	117	x	-	Prehistoric	Shell midden
BfDs1	"	P	-	-	-			"	
BgDr34	"	P	20	5	100	x	-	"	Shell midden
BgDr35	"	P	50	5	750	x	-	"	"
BgDr36	"	P	8	3	24	x	-	"	"
BfDr4	?	P	-	-	-	x	-	Historic	"
BfDs2	"	P	10	5	50	x	-	Prehistoric	"
BfDr5	"	P	80	15	1,120	x	-	"	Non-midden
BgDr37	"	P	18	5	900	x	-	"	Shell midden
BgDr38	"	P	45	25	1,125	x	-	"	"
BgDr39	"	P	66	27	1,782	x	-	"	"
BfDr6	Cairn	P	-	-	-	-	-	Historic	
BfDr7	Domestic	P	30	10	300	x	-	Prehistoric	
BfDr8	burial(?)	P	-	-	-	x	-	"	
BfDr9	domestic	P	-	-	-	-	-	Historic	House foundation
BfDr10	"	P	-	-	-	-	-	"	"
BfDr11	"	P	-	-	-	x	-	Prehistoric	
BgDr40	"	P	-	-	-	-	-	Historic	House foundation
BfDr41	"	P	-	-	-	-	-	"	"
BgDr22	"	P	12	4	48	x	-	Prehistoric	"
BgDr42	-	AL	-	-	-	x	-	"	
BgDr43	Domestic	P	35	10	350	x	-	"	Shell midden
BgDr44	"	P	35	30	1,050	x	-	"	"
BgDr45	?	P	-	-	-	x	-	Historic	"
BgDr46	Domestic	P	-	-	-	-	-	"	House foundation
BgDr47	"	P	50	25	1,250	x	-	Prehistoric	Shell midden
BgDr48	"	P	36	30	1,080	x	-	"	"
BgDr49	"	P	5.0	2.0	10.0	x	-	"	"
BgDr50	"	P	22	10	220	x	-	"	"
BfDr12	"	P	-	-	-	-	-	Historic	House foundation

figure 5: Summary of destructive agents acting on sites in Deer Island-Campobello survey with recommended action.

Site	Destructive agent(s)	Potential Damage Rating	Action
1	erosion, tree falls	3	L.T.
2	erosion, development	3	L.T.
3	erosion, contruction	3	L.T.
4	erosion, construction	3	E.T.
5	erosion, landscaping	3	L.T.
7	erosion	4	L.T.
8	erosion, development	5	E.T.
9	erosion	2	L.T.
10	ploughing	4	E.T.
11	erosion, construction	4	E.T.
13	erosion, potting	2	L.T.
14	erosion	1	E.T.
17	erosion	5	L.T.
20	erosion, tree falls	2	L.T.
22	erosion, potting	3	L.T.
23	erosion	3	E.T.
26	erosion, construction	3	E.T.
27	erosion	3	E.T.
28	erosion	2	L.T.
29	erosion	3	L.T.

figure 6: Summary of Artifacts from Deer Island - Campobello Survey

Site	Non-Stemmed biface	Celt	Flakes	Pottery	Misc.	Total
1	-	2	4	-	2	8
2	1	-	2	-	-	3
4	1	-	1	-	1	3
5	1	-	1	-	-	2
7	-	-	-	-	1	1
8	3	-	14	-	6	23
10	-	-	-	3	-	3
13	-	-	5	1	-	6
14	-	5	-	-	-	5
17	-	-	2	-	-	2
21	-	1	-	-	-	1
23	-	1	-	-	-	1
26	1	-	2	-	1	4
Total	7	9	31	4	11	64

figure 7: Ferry Site (BfDr39), Deer Island

figure 8: Deer Island (BfDr8)
axes

Miramichi Basin Estuary New Brunswick - 1980 Survey

by Patricia Allen

Introduction

As a portion of New Brunswick's ongoing archaeological sites inventory program, Historical Resources Administration, Archaeology Branch, undertook survey work in the Miramichi River district of northeastern New Brunswick. In keeping with recent studies concerning the archaeological crisis created by our rapidly eroding Maritime coastline (Simonsen 1979), the major areas chosen for examination were within the Miramichi tidal estuary.

The Survey

Survey work was conducted along the Northwest Miramichi river from the Red Bank/Sunny Corner bridge eastward to its junction with the Southwest Miramichi at Wilsons Point. From this Point the Southwest Miramichi was examined westward to the mouth of the Renous river; only the most westerly portions of this survey section lie above the present head of tide. The third area investigated was a portion of the main Miramichi, from the Boise Cascade Co. paper mill to the mouth of the Bartibog River along the north bank and from the community of South Nelson to the Chatham bridge along the south bank (fig. 1).

The 10 week survey period was interrupted occasionally by the testing of sites, by prior committments of the Archaeology Branch towards the setting up and dismanteling of the Red Bank archaeology display, and by a few days of inclement weather. Additional time was spent checking sites

that had been reported from locations which lay outside the designated survey area.

Methodology

The survey was conducted with the aid of a Historical Resources suburban truck and an 18 foot ABS canoe. Both vehicles proved more than adequate in terms of transportation and durability. A motorized boat would have offered certain advantages along the main Miramichi.

When at all possible, beach and bank areas were examined by foot. The terrace behind the bank was checked only in the event that evidence for a site had been located along the beach or in the adjacent exposed bank.

The walking survey was interrupted during several weeks of mid-summer when exceedingly high water levels prevailed. Also, most beach areas were completely submerged during any regular high tide. At such high water times the examination of banks and submerged beaches was undertaken from the canoe.

When a site was located it was investigated by both crew members. Shovel probes were not conducted, the estimates of possible site dimentions were based entirely on beach, bank and/or terrace exposed deposits. Each site was surface collected. When numerous quartz flakes and cores were available for collecting, a note was made of this situation and only a few specimens were retained as samples. Surface collections from a number of sites could have been doubled if the tide had been low during investigation.

Once examined, each site was recorded on a New Brunswick Archaeological Site Survey Form and plotted on both a 1:50,000 scale topographic map and on a 1:20 chain surface feature map for the area. Each site was photographed with a Polaroid camera and the instant photo was attached to the site survey form. The sites were further photographically recorded, usually from a distance, with a 35 mm camera. Additional photographs and records were kept if the site was tested. Although a number of persons from the various local areas were informed of the project and questioned about the possibility of sites on their properties, this avenue of investigation was not frequently used. The sites are summarized in fig. 1.

The Northwest Miramichi

Of the three river sections examined during the 1980 survey, the tidal estuary of the Northwest Miramichi from Red Bank east to the Boise Cascade Co. paper mill was the most productive. Over the 20 km, 42 sites were located. The majority of sites (28), lay on the north bank while the remaining 14 were situated along the south bank. A concentration of 18 sites occurred between Whitney and Sunny Corner on the north shore (fig. 2), a distance of 10 km.

In the section surveyed, the Northwest Miramichi has its narrowest widths between Red Bank and Sunny Corner (0.25 km) and at its mouth, between the Enclosure Provincial Park and the Boise Cascade mill (0.3 km). The remainder of the river is at least double the width recorded at either of these two locations. The widest portion of the Northwest occurs

between McKay Cove on the north and Stewart Brook on the south bank, a distance of approximately 0.75 km.

During low tide periods the north bank of the river between Red Bank and Boom Road becomes a maze of low grassy islands. While a few of the more westerly islands are always visible, the majority of easterly ones present themselves only during low tides. At times of extremely low water, the central portion of the Northwest between Boom Road and Upper Whitney also presents a string of low grassy bars. A number of the islands and bars appear to lie downriver from the numerous rock filled wooden boom cribs, these having been placed in the river for the benefit of the 19th and early 20th century logging industry on the Miramichi.

Large low tide marshes occur at three locations along the north bank of the Northwest; between Sunny Corner and the area just below Boom Point, at the mouth of the Northwest Millstream and at the mouth of Jones Cove. Smaller marsh-like situations occur at the mouths of most small brooks along both banks. The shores vary from sand to gravel with mud being present at low tides in the marsh areas. Springs were a common occurrence on most beaches; very few clay beds were noted.

The terrain associated with the Northwest varies from low plateau type such as those found just below Sunny Corner and at Goodfellows Point, to high gravel banks such as are found near Whitney, to high shale cliffs such as are present opposite Goodfellows Point and to the west of Eel Ground.

The Southwest Miramichi

The Southwest Miramichi was surveyed from its junction with the Renous river northeastward to its junction with the Northwest Miramichi, a distance of approximately 23 km. Twenty-one sites were located along this section of the river, 15 on the north bank, three on the south bank, two on the point between the Renous and the Southwest Miramichi rivers and another on Barnaby Island. A concentration of sites (seven) occurred near the Renous/Southwest Miramichi River confluence (fig. 3).

The width of the Southwest Miramichi is relatively narrow (0.1 km) at Quarryville, has a maximum breath near Barnaby Island (0.75 km) and narrows (0.5 km) at its mouth. Beaches along the northeast section of the river were mainly sandy while along the more westerly sections the shores were entirely covered with crushed shale or gravel. Although present in most areas, small beach springs do not occur as frequently as along the Northwest Miramichi.

With the exception of the area around the mouth of Barnaby river and another at a cove in Lower Derby, large marsh-like areas are not found. Brooks near the western end of the survey section did not turn into marshy areas at low tide. Further eastward, however, swamps were more noticeable.

In addition to Barnaby Island, a number of small islands lie at the mouth of Barnaby river. East of this point the central portion of the Southwest becomes very shallow. Large numbers of rock lined wooden boom cribs are present along the entire lower section of the Southwest Miramichi.

The terrain associated with the Southwest branch is somewhat more rugged than that of the Northwest. High bank edges, especially along the western shore, rise steeply and are covered mainly by spruce. Low level terraces adjacent to the river are infrequent and open areas produced by agricultural activity also appear less often. CNR tracks follow the bank from Derby Junction through to Derby; this 10 km stretch of rail has completely destroyed the original bank areas along most of this section.

The Miramichi River

The north and south shores of the main Miramichi were surveyed for approximate distances of 24 and 12 km respectively. The north bank survey commenced at the Boise Cascade mill and extended northeastward to Bartibog Island. The south bank survey was conducted from South Nelson Road to the Chatham bridge (fig. 4). A total of 16 sites were located during main river survey, 13 on the north bank and three on the south. A fourth south bank site was located east of the survey area during a spot check of a reported site near Loggieville.

East of Beaubears Island the south shore of the main river is bounded mostly by low marshy areas. Canadian Point and the Chatham Head marsh illustrate this terrain well. Near Chatham the bank edges become somewhat raised and in places turn into low sandstone cliffs. The north shore of the main Miramichi also varies between large low marshy areas like Strawberry Point and the high sandstone cliffs which occur east of Newcastle. Along both the north and south banks beaches are generally sandy. Brook mouths are predominately swampy areas.

Shipping is a major economic concern within the estuary of the main Miramichi (Philpott 1978:34). Wharfs are numerous and ship traffic frequents both sides of the river. The south/east bank survey area was much disturbed by industrial plants, highway and house construction. Two saw mills, a pulp mill, a press board plant, a concrete plant, chemical and oil campany tanks as well as their accompanying docking zones line the distance between Nelson Miramichi and Chatham. Log walls and rock filled wooden cribs built to act as erosion barriers support the low banks along the community of Nelson Miramichi.

The north/west bank of the main Miramichi from Northwest Bridge to Nordin is also completely disrupted by 19th and 20th century industrial and shipping related activities. The Boise Cascade paper mill, sewage treatment plants, Newcastle dock areas as well as highway and housing construction have mutilated most of the Newcastle to Nordin shoreline. The Douglastown shoreline has not been disturbed recently, however; it was heavily involved with the 19th and early 20th century shipping industry. Many old wharfs line this beach area. Except for agriculture and isolated 19th century industrial locations, the shoreline east of Douglastown becomes less disturbed by human activities. Tidal erosion is increasingly evident in this area, however, as sandstone cliffs have been badly undercut and are daily collapsing onto the beaches (fig. 9).

Survey Results Summary

Eighty sites were recorded during the 1980 Miramichi river survey. Of the total 42 were found on the Northwest Miramichi, 21 were located on the Southwest branch and 17 sites were recorded on the main Miramichi. Ten of the total were strictly of a historic nature, seven were a combination of historic and prehistoric while the remaining 63 were considered to be wholly prehistoric.

Historic Sites

Of the 17 sites which involved an historic component, four appear to be some sort of 19th century habitation. Two other possible habitations probably date to an earlier 18th century occupation. The latter two sites are CeDk-1 and CfDj-23 located at the mouth of the Renous and on Barnaby Island respectively.

The historic component at CeDk-1, the Hambrook farm site, was dated by the test excavation recovery of a 1718 Spanish coin. The test unit was adjacent to a slight oval depression. This site may relate to a historic Indian occupation at the mouth of the Renous (Perley 1841).

The Barnaby Island site (CfDj-23) appears particularily interesting due to the presence of surface features which may indicate the fortification of several structures. The site was dated to the latter half of the 18th century by the presence of eroding creamware ceramics (Noel Hume 1969:129). The mid to late 1700's were important historical years for the Miramichi. A search of historical documents could tie this site to one or another of several historical events pretaining to this time and area (fig. 7).

Six 19th century period sites appear to relate to the economic history of the Miramichi area. Half of these sites appear to be the remains of "mills" or industrial sites of some sort while the others are old wharfs or docks. Although much remains, all these sites are eroded to some extent. A minimum of historical research could define the importance of such sites to the history of the Miramichi. One site at French Fort Cove (CgDj-2), and another at Millbank (CgDi-10), were without a doubt very important industrial locations during the late 19th century.

A most important 19th century economic site within the survey area is located on Beaubear's Island and relates to the ship building industry of the early to mid 1800's. This site and others on the Island were reported in an earlier survey (Allen 1978).

The remaining historic sites are from unknown time periods and are generally represented by surface features such as cellars or trenches. Although no surface collections were made from these sites the location and present state of some of the sites does not suggest a recent historic occupation. Two sites in particular, CfDk-34 on Northwest Millstream Island and CfDk-39 located on the north bank of the Northwest branch near Whitney, should be further investigated to determine their origin.

Prehistoric sites

Burial Site

Seventy sites of a prehistoric nature were recorded. With one exception all prehistoric sites were considered to be occupation areas. The exception, the Gerrish site (CeDk-2) in Quarryville, is probably an

"Archaic" period burial site. Although no artifacts were recovered during the 1980 testing of this site, a large "pit" feature was recorded (fig. 6). Artifacts recovered in 1968 by a New Brunswick Electric Power Commission post hole excavation originally prompted testing of the site by Historical Resources (Allen 1975). Although an absolute temporal placement for this site has not been established, the remainder of the basically undisturbed Gerrish site has much to offer in terms of earlier period research.

Occupation Sites

Of the 69 occupation sites recorded, 47 were situated near the mouth of some small brooks Most other sites were located near the frequently occurring beach springs. As expected the major portion of the surface collections from most sites was composed of quartz chipping debris.

Five occupation sites located on the Northwest Miramichi appear to date to the most recent prehistoric period. Using "types" of projectile points as temporal indicators (Allen 1981: 339), I would suggest that CfDk-10, 12, 37 and 46 are perhaps within the range of 500-1500 years old. An additional site, CfDk-34, probably dates somewhat earlier, perhaps near 2000 BP. Another site, on the Southwest, CeDk-1 may date to approximately the same period. Surface collections from the remainder of the prehistoric sites lacked temporal indicators.

Exceedingly few prehistoric sites with portions remaining were found to be completely undisturbed. The most common disturbing agent was agriculture. Nineteenth and 20th century developments have disrupted what remains of a number of other sites. In several cases the survey crew was unable to ascertain if the site had been agriculturally disturbed or not.

Probably undisturbed sites

Of the prehistoric sites having some portions remaining and judged as "probably undisturbed", CfDk-21 and CfDj-18 appear to be the most promising for research purposes. Both sites are presently eroding as is evidenced by undercut trees and a drowned brook at CfDk-21 and by the undercut slumped bank at CfDj-18. Although the beach areas at both sites were coated with chipping debris, no artifacts were found which could suggest a time placement for these sites. Other smaller occupation sites estimated to have some undisturbed portions remaining are CfDk-40, 51 and CfDj-32. All the "probably undisturbed" sites should be tested to determined their potential to provide research information.

Possibly stratified sites

Two sites on the Southwest and another two on the Northwest have had their surfaces disturbed by agriculture but have a definite "stratified" potential. These sites are CeDk-4 near the mouth of the Renous, CeDk-5 in Quarryville, the eastern portion of CfDk-9 near Sunny Corner and CfDk-36 on Goodfellows Point. Neither CeDk-4 nor 5 are presently endangered by natural or human factors. CfDk-9 is threatened by both and CfDk-36 has been and continues to be eroding. All four sites should be tested to determine their true sub-surface research value. If not stratified, Goodfellows Point could still provide significant pieces of information.

High terrace sites

A number of agriculturally disturbed sites were located along high terraces with exposed bank edges. Most of these sites presently exist as long narrow strips of occupation area. The exposed bank edges and beach areas in front of these sites suggest that most are badly eroded and soon will be gone. A large number of sites situated on high banks were estimated to have already been completely eroded.

Two sites, CgDi-12 and CfDk-45, have a very limited, perhaps less than five meter wide portion of occupation areas remaining in their terrace edges. Other sites like CfDk-10, 31, 32, 37, and 38 are estimated to be 10 to 15 meters wide and have varying lengths. Of the above only CfDk-37 has a known temporal position - late. CgDi-12 is interesting because the small portion of the site which does remain contains meager amounts of crushed oyster shell.

Although most appear disturbed by the plow, the high terrace sites do have a definite research potential. The life expectancy of the above mentioned sites is not long and therefore near immediate testing is recommended for all.

Low terrace sites

A number of lower bank sites are equally threatened with a short life. CfDj-13 and 14 are located on the Eel Ground Indian Reserve, and are badly eroded low terrace sites. The thin strip of occupation area remaining at CfDj-13 deserves at least testing attention before it is completely lost. CfDj-21, a small site located just west of the Strawberry marsh, was disturbed by 19th century wharf construction; however, some intact portions may remain in the low terrace. Since this is the only prehistoric aist within Newcastle town

boundaries of which anything remains, it should be salvaged as soon as possible before complete destruction occurs.

CfDj-32 is another small site, this one located on the south bank of the lower reaches of the Southwest branch. When visited the site was under threat by human activities. A bulldozer was clearing a portion of the site area. The site should be re-examined as soon as possible to assess the extent of damage. The remainder of the site would be basically undisturbed and could serve for research purposes.

CfDk-33, 44, 45 and 46 all located on the Northwest branch area all are presently endangered by either rapid erosion or human developments or by combination of both. CfDj-46, a late period site, was tested and found eroded to the extent that the remaining site area involved only a long thin strip of the low terrace edge. Once again it was discovered that the upper portions of the site had been agriculturally disturbed; however, the area definitely holds considerable information concerning the late prehistoric occupations on the Miramichi. Although CfDk-33, 44 and 45 were not judged to cover as extensive an area as CfDk-46, they should be tested as soon as possible to determine their potential research value.

Of all the disturbed prehistoric sites located during the survey, the largest and most intact was CfDk-22. This site is located in a shallow cove near the mouth of an unnamed brook on the north bank of the Northwest Miramichi. Hundreds of pieces of chipping debris were noted lying along an approximate 200 m stretch of beach frontage and inland for at least 30 m. Although the site is agriculturally disturbed its large remaining area could no doubt provide much research data. The site, although not eroding as badly as some along the

Northwest, holds much in the way of research potential and should be tested at the earliest opportunity.

The last site which deserves special mention is CfDk-44. This site on the south bank of the Northwest appears to have only a small portion remaining. The bank edge is being heavily eroded at this location; a narrow three meter wide portion of the edge contains a deep brown organic soil and many quartz flakes. The soil at this spot was almost of a compost quality and did not appear to extend east or west of that specific location. Fallen trees undercut by erosion lined the bank edge of this site and made examination of the deposit exceedingly difficult. This location should be salvaged immediately before the dark patch of earth is completely lost.

Conclusions

The results of the 1980 Miramichi river survey are not encouraging. With the exception of seven sites located just above the head of tide at the Renous/Southwest Miramichi confluence, all other sites recorded had been completely eroded or were still being eroded. Thirty-one prehistoric sites (39% of the total sites discovered) were estimated to have been completely lost. In 22 of these cases the loss was strictly attributed to erosion while in nine cases the destruction was due to a combination of human and natural forces. Further, the greater portions of twenty-three additional sites (29% of the total sites discovered) were considered to have been destroyed or lost. For ten of these sites erosion was considered the only destructive agent while in the remaining 13 cases, erosion as well as human factors contributed to the present state of the site.

As the survey team worked downriver from the head of tide on both the Northwest and the Southwest branches, it became apparent that the greater number of prehistoric sites with portions remaining were located in the upper reaches of the tidal zone. Further downriver on each of these branches and on the main Miramichi prehistoric sites became more scattered and offered less in terms of any remaining deposits (fig. 5). The scarcity of prehistoric sites in these areas may have some cultural explanation; however, the state of those sites which do exist suggests erosion may be responsible for the situation. Recent changes along the main river shoreline stand in testimony to the rapid and devastating effects of erosion in the eastern sections of the survey area. Sandstone slabs which stood as cliff faces in the 1950s have been undercut and now lie face down on submerged beaches.

While erosion was the single most destructive force which involved the entire survey area, human development has had a marked impact on the archaeological resources near the urban centers. Both river banks between the towns of Newcastle and Chatham have been ravaged by 19th and 20th century economic enterprises. Little or nothing of a prehistoric nature has survived amongst the wharfs and river side industrial plants (fig. 8). One prehistoric native encampment, CfDj-31, was disturbed as early as the 19th century by the construction and subsequent use of a wharf. Within the last 50 years both this prehistoric site and the wharf were buried beneath approximately one meter of pulp mill bark landfill. Erosion, with little regard for past or present, is steadily eating away at what remained of the prehistoric site, the wharf site and the sanitary landfill!

Important historic locations have not fared much better than the prehistoric sites. The supposed location of the late 17th century Denys establish-

ment at the junction of the Northwest and Southwest Miramichi branches has either been completely washed away (Ganong 1907:32) or has been destroyed by the construction of the Boise Cascade Co. paper mill and associated waste treatment plants. In this particular case erosion would appear to be the culprit. Several 17th century maps (Ganong 1907:30) indicate a point of land at this specific location; presently the shoreline does not protrude.

In summary it would appear that the inner tidal zone of the Miramichi river is rapidly being stripped of both its prehistoric and historic archaeological resources. This report suggests at least testing of a large number of the sites found during the 1980 survey needs to be carried out. Since the majority of these sites will not be with us much longer, it behooves us to carry out this preliminary work with all due haste. Once testing has been accomplished, the sites can be dealt with according to their anthropological/historical potential.

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figure 1 Miramichi River Survey 1980 - Areas Surveyed

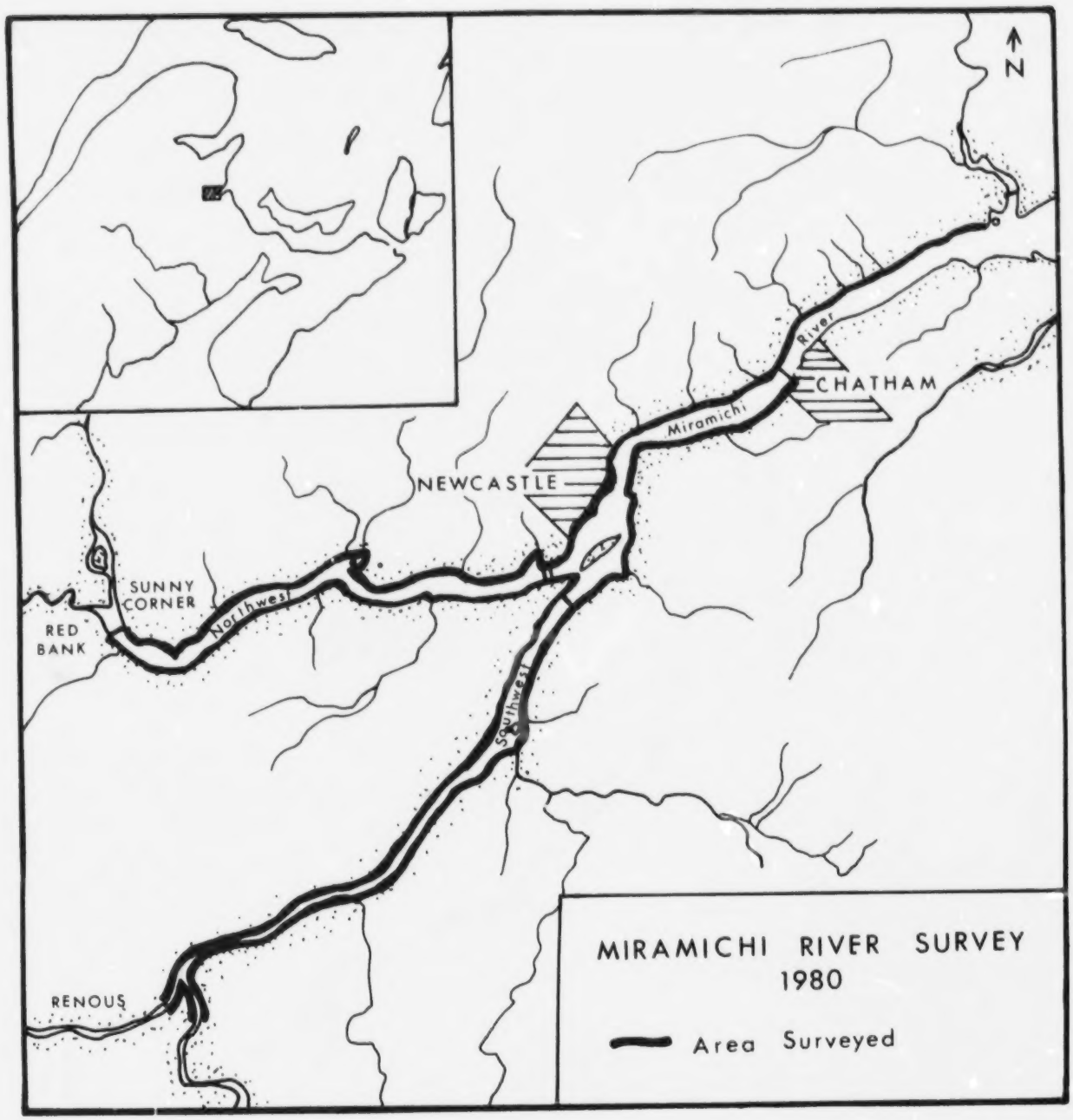
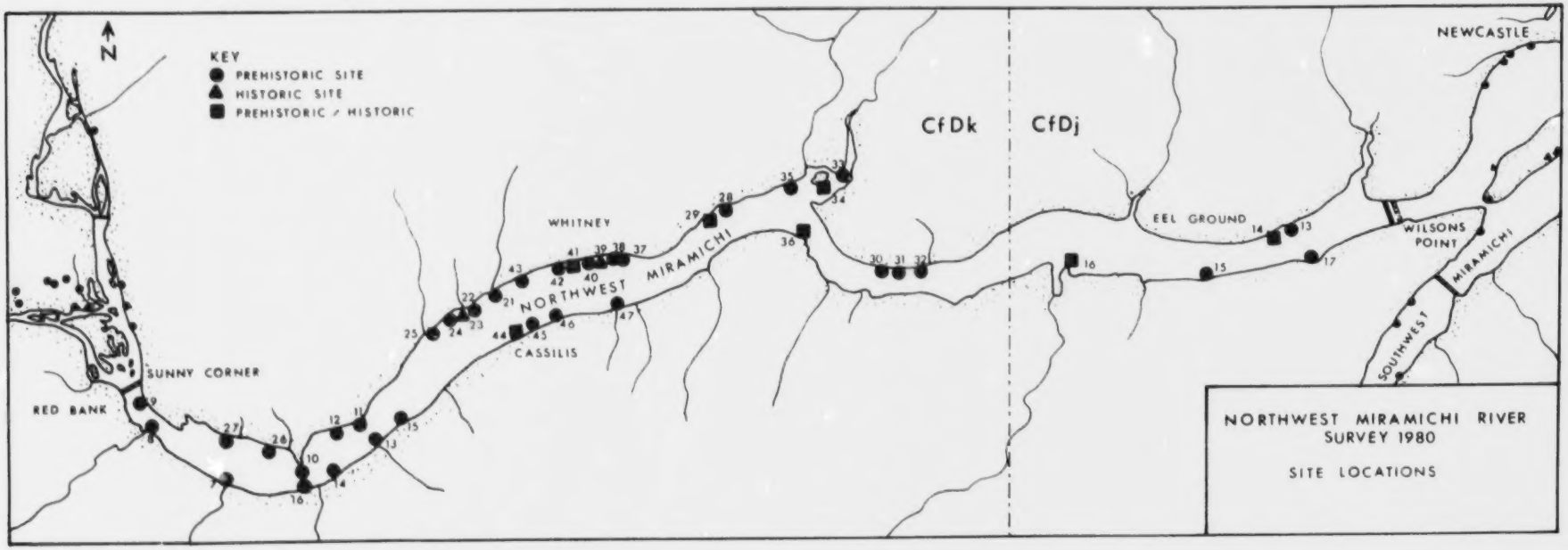

N
CHATHAM
Miramichi River
NEWCASTLE
SUNNY CORNER
Northwest
RED BANK
Southwest
RENOUS
MIRAMICHI RIVER SURVEY
1980
Area Surveyed

figure 2 Northwest Miramichi River Survey 1980 - Site Locations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HISTORIC SITE
PREHISTORIC ⁄ HISTORIC
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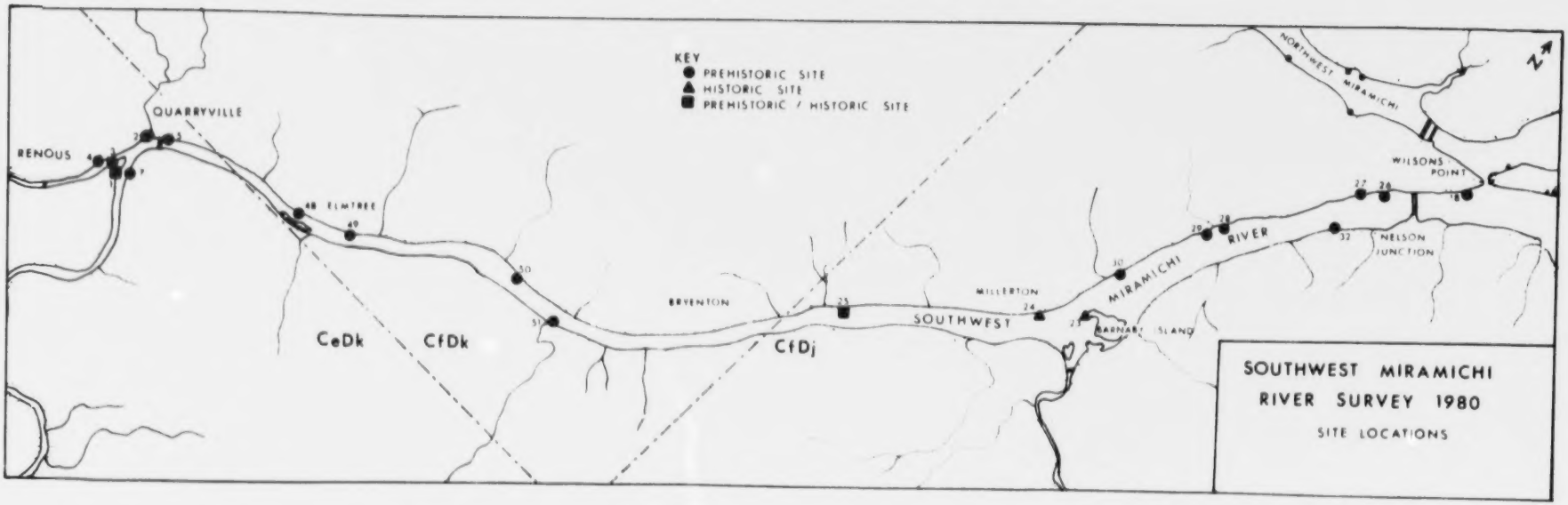
CfDj
NEWCASTLE
WHITNEY
NORTHWEST MIRAMICHI
EEL GROUND
WILSONS POINT
MIRAMICHI
SOUTHWEST MIRAMICHI
CASSILIS
SUNNY CORNER
RED BANK
NORTHWEST MIRAMICHI RIVER
SURVEY 1980
SITE LOCATIONS

figure 3 Southwest Miramichi River Survey 1980 - Site Locations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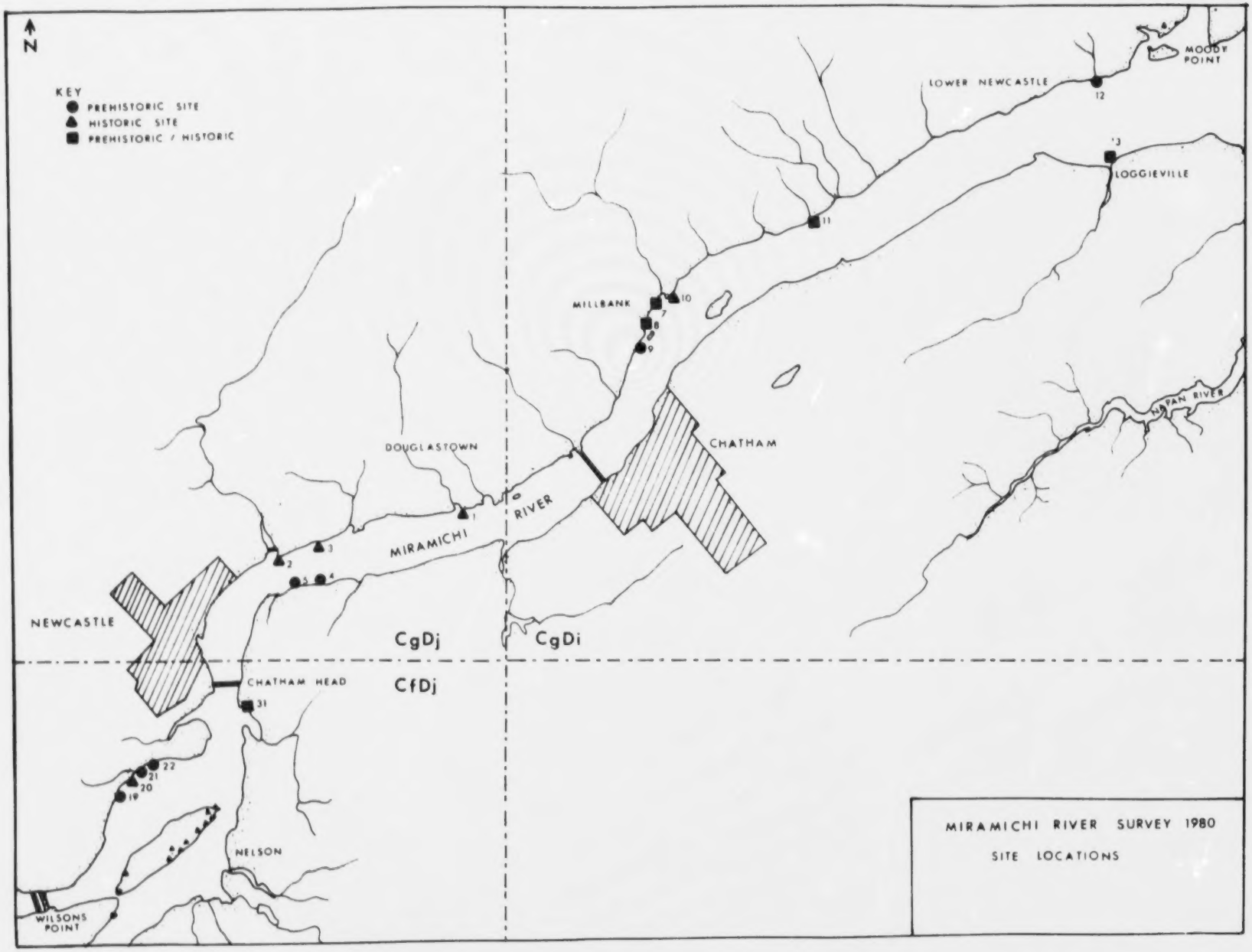
RENOUS
ELMTREE
BRYENTON
MILLERTON
SOUTHWEST
MIRAMICHI
RIVER
NORTHWEST MIRAMICHI
WILSONS POINT
NELSON JUNCTION
BARNABY ISLAND
CeDk
CfDk
CfDj
N
SOUTHWEST MIRAMICHI
RIVER SURVEY 1980
SITE LOCATIONS

figure 4 Main Miramichi River Survey 1980 - Site Locations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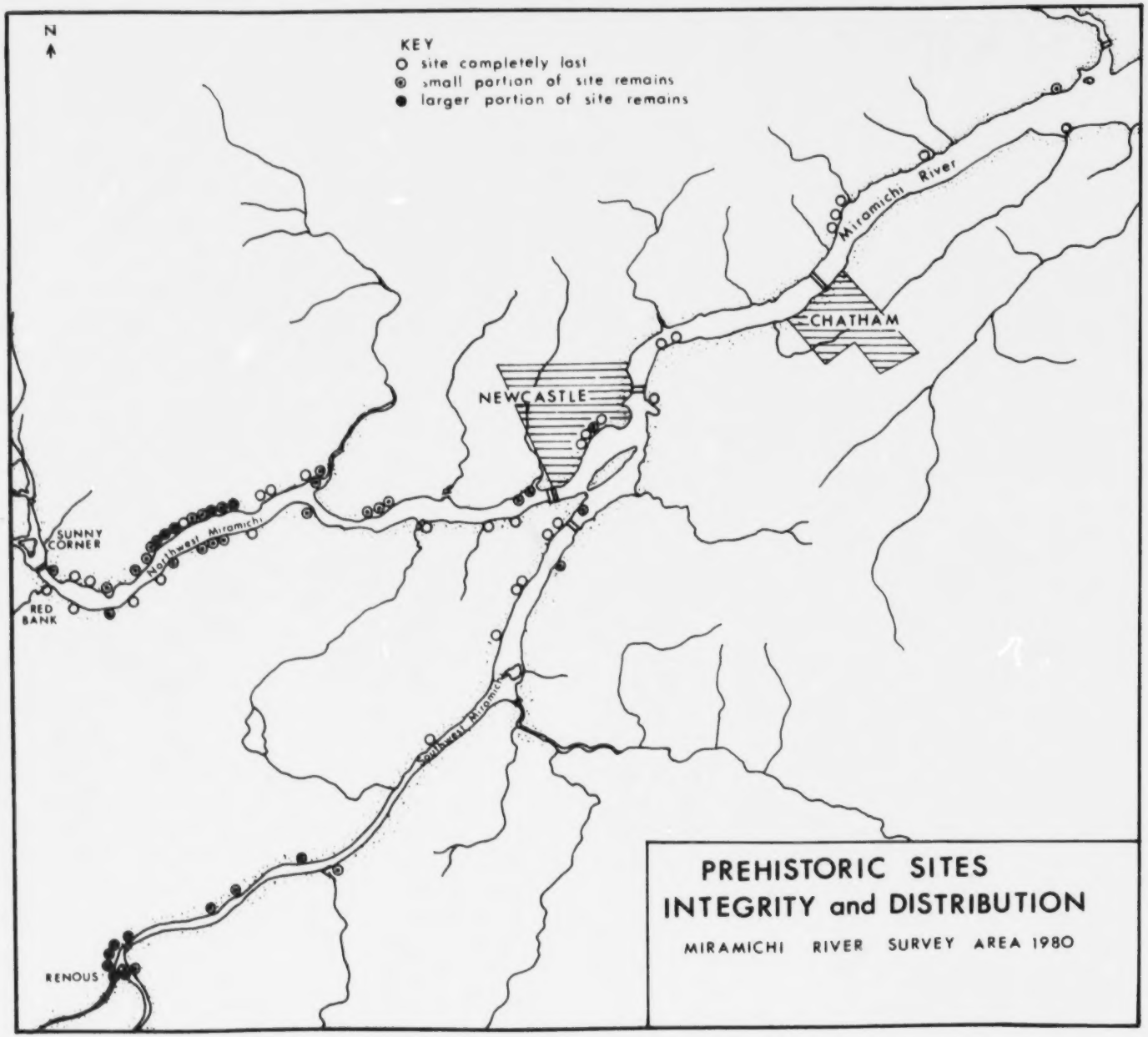
LOGGIEVILLE
11
MILLBANK
10
7
8
9
MIRAMICHI RIVER
DOUGLASTOWN
CHATHAM
1
2
3
4
5
NEWCASTLE
CgDj
CgDi
CfDj
CHATHAM HEAD
31
22
21
20
19
NELSON
WILSONS POINT
MIRAMICHI RIVER SURVEY 1980
SITE LOCATIONS

figure 5 Prehistoric Sites - Integrity and Distribution Miramichi River Survey area 1980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KEY
site completely lost
small portion of site remains
larger portion of site remains
Miramichi River
CHATHAM
NEWCASTLE
SUNNY CORNER
Northwest Miramichi
RED BANK
Southwest Miramichi
RENOUS
PREHISTORIC SITES
INTEGRITY and DISTRIBUTION
MIRAMICHI RIVER SURVEY AREA 1980

figure 6 CeDk-2, Gerrish Site, Pit Feature

figure 7 CfDj-23, Embankments at the Western Tip of Barnaby Island

figure 8 Boise Cascade Pulp/Paper Mill just west of Newcastle on the north bank of the Northwest Miramichi

figure 9 Erosion on Main Miramichi River near CgDi-12

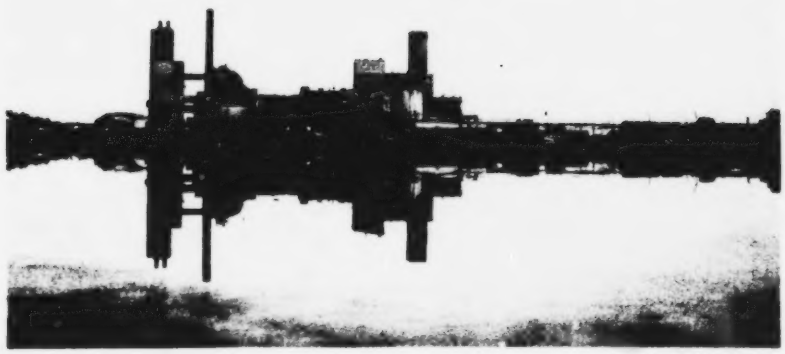

figure 10 1980 Miramichi River Survey - Stemmed and Non-stemmed Bifaces

a) CfDk-10:51 corner-notched projectile point base
b) CfDk-10:53 stemmed projectile point
c) CfDk-10:52 corner-notched projectile point
d) CfDk-37:3 corner-notched projectile point
e) CfDk-46:6 expanding stemmed projectile point
f) CfDk-46:7 mid-section stemmed projectile point
g) CfDj-18:2 biface
h) CfDk-38:2 small biface
i) CfDk-21:4 biface
j) CfDj-12:1 biface blank
k) CfDk-38:1 oval biface
l) CfDl-21:2 biface base
m) CfDk-21:5 biface base
n) CfDk-46:3 biface base
o) CfDk-37:1 biface base
p) CfDk-25:4 biface blank
q) CfDk-32:3 biface
r) CfDk-39:1 biface
s) CfDk-46:1 biface
t) CfDj-18:3 biface blank

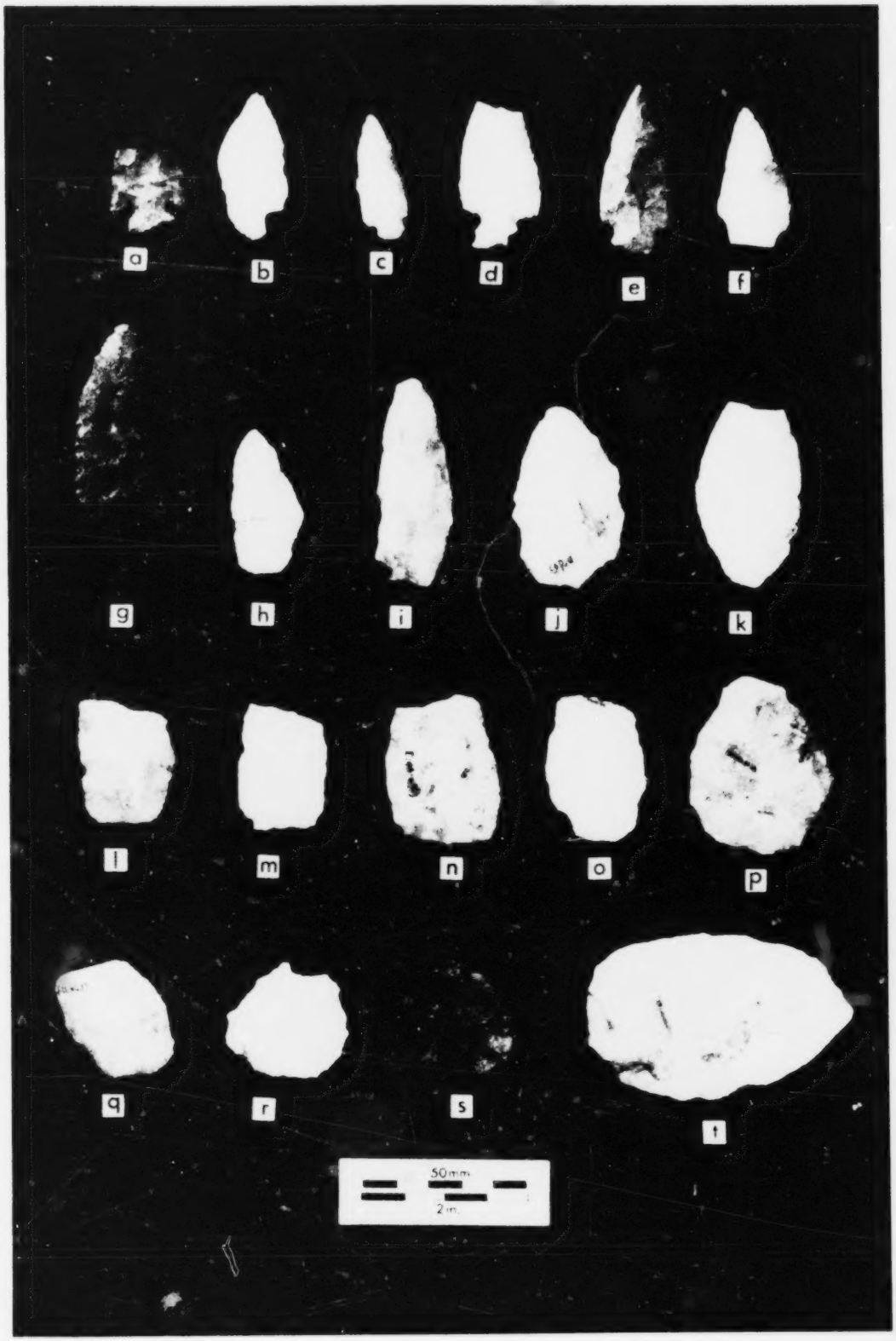
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figure 11 Summary of Archaeological Sites, Miramichi Estuary, Northumberland County, New Brunswick - 1980

Site No.	Kind	Primary(P) or Artifact(AL) Location	Dimension L	W	A	Eroding	Modern Disturbance	Age	Remarks
CfDk-7	-	AL	20	-	-	x	x	Prehist.	
-8	-	AL	50	-	-	x	x	Prehist.	
-9	domestic	P	200	-	-	x	x	Prehist.	
-10	"	P	80	-	-	x	x	Prehist.	
-11	-	AL	50	-	-	x	x	Prehist.	
-12	-	AL	200	-	-	x	x	Prehist.	
-13	domestic	P	30	-	-	x	x	Prehist.	
-14	-	AL	20	-	-	x	x	Prehist.	
-15	domestic	P	20	-	-	x	x	Prehist.	
-16	-	AL	40	-	-	x	x	Prehist.	
-21	domestic	P	60	60	600	x	-	Prehist.	
-22	"	P	100	50	5000	x	x	Prehist.	(mostly intact)
-23	"	P	5	5	25	-	-	Hist. 19th C	(cellar)
-24	-	AL	200	-	-	x	-	Prehist.	
-25	-	AL	200	-	-	x	x	Prehist.	
-26	-	AL	-	-	-	x	-	Prehist.	
-27	-	AL	-	-	-	x	-	Prehist.	
-28	-	AL	10	-	-	x	-	Prehist.	
-29	-	AL	-	-	-	x	-	Hist/Prehist.	
-30	-	AL	-	-	-	x	x	Hist/Prehist.	
-31	domestic	P	50	10	500	x	x	Prehist.	
-32	"	P	30	10	300	x	x	Prehist.	

figure 11(cont.)

Site No.	Kind	Primary or Artifact Location	Dimension L	W	A	Eroding	Modern Disturbance	Age	Remarks
CfDk-33	domestic	P	40	15	600	x	x	Prehist.	
-34	"	P	-	10	-	x	-	Prehist. (+ Hist.)	(campsite + historic cellar)
-35	-	AL	10	-	-	x	-	Prehist.	
-36	domestic	P	150	-	-	x	x	Prehist. + Hist.	(well)
-37	"	P	100	20	2000	x	-	Prehist.	
-38	"	P	100	10	1000	x	-	Prehist.	
-39	"	P	-	-	-	-	-	Hist.	(cellar)
-40	"	P	60	20	1200	x	x	Prehist.	
-41	"	P	40	-	-	x	-	Prehist. + Hist.(19thC)	(cellar)
-42	-	AL	150	-	-	x	-	Prehist.	
-43	-	AL	40	-	-	x	-	Prehist.	
-44	domestic	P	30	-	-	x	x	Prehist.	(some historic)
-45	"	P	40	-	-	x	-	Prehist.	
-46	"	P	100	8	800	x	-	Prehist.	
-47	-	AL	10	-	-	x	-	Prehist.	
-48	-	AL	20	-	-	x	x	Prehist.	
-49	-	AL	25	-	-	x	-	Prehist.	
-50	-	AL	20	-	-	x	-	Prehist.	
-51	-	AL	20	-	-	x	-	Prehist.	
CgDi-7	-	AL	15	-	-	x	-	Prehist.	
-8	-	AL	-	-	-	x	-	"ist/Prehist	
-9	-	AL	40	-	-	x	-	Prehist.	
-10	industrial	P	-	-	-	-	-	Hist(19-20thC)	

figure 11 (cont.)

Site No.	Kind	Primary or Artifact Location	Dimension L	W	A	Eroding	Modern Disturbance	Age	Remarks
CgDi-11	domestic	A	20	-	-	x	-	Prehist/Hist.(19thC)	(cellar)
-12	"	P	40	-	-	x	-	Prehist.	
-13	-	Al	100	-	-	x	x	Prehist.+Hist.(19-20thC)	
CfDj-13	domestic	P	50	10	500	x	x	Prehist.	
-14		P	60	-	-	x	x	Prehist.	
-15	-	AL	10	-	-	x	-	Prehist.	
-16	-	AL	30	-	-	x	-	Prehist.	
-17	-	AL	20	-	-	x	-	Prehist.	
-18	domestic	P	150	-	-	x	-	Prehist.	
-19	-	AL	100	-	-	x	-	Prehist.	
-20	industrical	P	30	-	-	x	-	Hist.(19thC)	
-21	domestic	P	100	-	-	x	-	Prehist.	
-22	-	AL	100	-	-	x	-	Prehist.	
-23	domestic	P	50	-	-	x	-	Hist.	(cellars ?)
-24	wharf	P	200	-	-	x	-	Hist.	
-25	wharf	P	10	-	-	-	-	Hist.	
-26	-	AL	10	-	-	x	-	Prehist.	
-27	-	AL	20	-	-	x	-	Prehist.	
-28	-	AL	20	-	-	x	-	Prehist.	
-29	-	AL	10	-	-	x	-	Prehist.	
-30	domestic	AL	10	-	-	x	-	Prehist.	
-31	wharf	P	100	-	-	x	x	Prehist./Hist. (19-20thC)	
-32	domestic	P	50	10	500	x	x	Prehist.	

figure 11 (cont.)

Site No.	Kind	Primary or Artifact Location	Dimension L	W	A	Eroding	Modern Disturbance	Age	Remarks
CeDk-1	domestic	P	80	20	1600	x	x	Prehist. (ceramic); Hist. (18 +19th C).	
-2	burial(?)	P	-	-	-	-	x	Prehist. (Archaic)	
-3	domestic	P	-	-	-	-	x	Prehist.	
-4	"	P	-	-	-	-	x	Prehist.	
-5	"	P	60	-	-	-	x	Prehist.	
-6	"	P	30	-	-	-	x	Prehist.	
-7	-	AL	-	-	-	-	x	Prehist.	
CgDj-1	domestic	P	-	-	-	-	-	Hist. (19thC)	(cellar)
-2	industrial	P	-	-	-	-	-	Hist. (19thC)	
-3	domestic	P	30	-	-	x	-	Hist. (19thC)	
-4	-	AL	30	-	-	x	-	Prehist	
-5	-	AL	10	-	-	x	-	Prehist	

Prince Edward Island Archaeological Research 1980

by Dr. David Keenlyside

Introduction

The following paper represents a summary of archaeological investigations on Prince Edward Island during the summer of 1980. Because all of this material has to date not been completely analysed in detail, interpretations and conclusions are necessarily preliminary in nature and in part, based on field observations and comparative data from Prince Edward Island and neighbouring Maritime Provinces. It is nevertheless hoped that this initial statement will provide documentation of this past summer's field research and too, some observations helpful in planning future archaeological research.

Historical Background

Archaeological research on Prince Edward Island has received, of all three Maritime Provinces, the least attention from archaeologists working in the Atlantic region. This is somewhat surprising, since the pioneer work by the National Museums of Canada under the direction of W. J. Wintemberg in 1913 on the Island, was as productive as other areas examined in the Maritimes. Areas which he examined included much of the northern coastline from Malpeque to St. Peter's Bay. The results of this work were never published, but are summarized in an archival manuscript at the National Museum of Man. It was not until the survey work of Richard Pearson (also sponsored by the National Museum) nearly half a century later as part of a broad

Maritimes survey, that archaeological work was carried out in the Province. Pearson's 1961 and 1962 surveys (16 days) re-examined many of Wintemberg's sites along the north shore and also idenfitied a number of new sites on the eastern coast between East Point and Savage Harbour. This research is summarized in log form (ms. Pearson 1962). In 1975 and 1976, a team of archaeologists from Memorial University, Newfoundland, under the direction of Jim Tuck, surveyed and excavated sites in the Savage Harbour, North Lake and South Lake localities on the eastern part of the Island. This work has not as yet been reported.

In 1978, I visited Lennox Island on Malpeque Bay, in the hopes of initiating an archaeological program there. Vestiges of a burial site on Hog Island across from the Lennox Island Reserve were examined briefly and collections documented. Our attention was also drawn to recent discoveries along the northeast coast near Souris. Pearson's work in the 1960's and most recently, surface collections by Mr. Reagen Paquet (Curator, Basin Head Museum) in the Basin Head and South Lake areas had produced considerable archaeological material. Several sites were examined in 1978 and again in 1979. However, it was not until this past summer that serious attention could be given this area. During the month of June, a period of three and one-half weeks were devoted to surveying and excavating selected archaeological sites along the coastline between Souris and East Point (fig. 1). Much of this research concentrated on the lagoon/estuaries at South Lake.

Although a major site (CcCm-18) was located south of Basin Head, only a short period could be spent examining the coastline and inland areas between Basin Head and Souris. From Little Harbour to Souris the shoreline is quite rugged and is not dissected by any major streams. Consequently, this section of the coastline does not appear to be archaeologically promising. The Little Harbour area on the other hand holds promise. Black Pond, which lies a short distance inland is a waterfowl sanctuary, and may have been a prime natural resource area in prehistoric times.

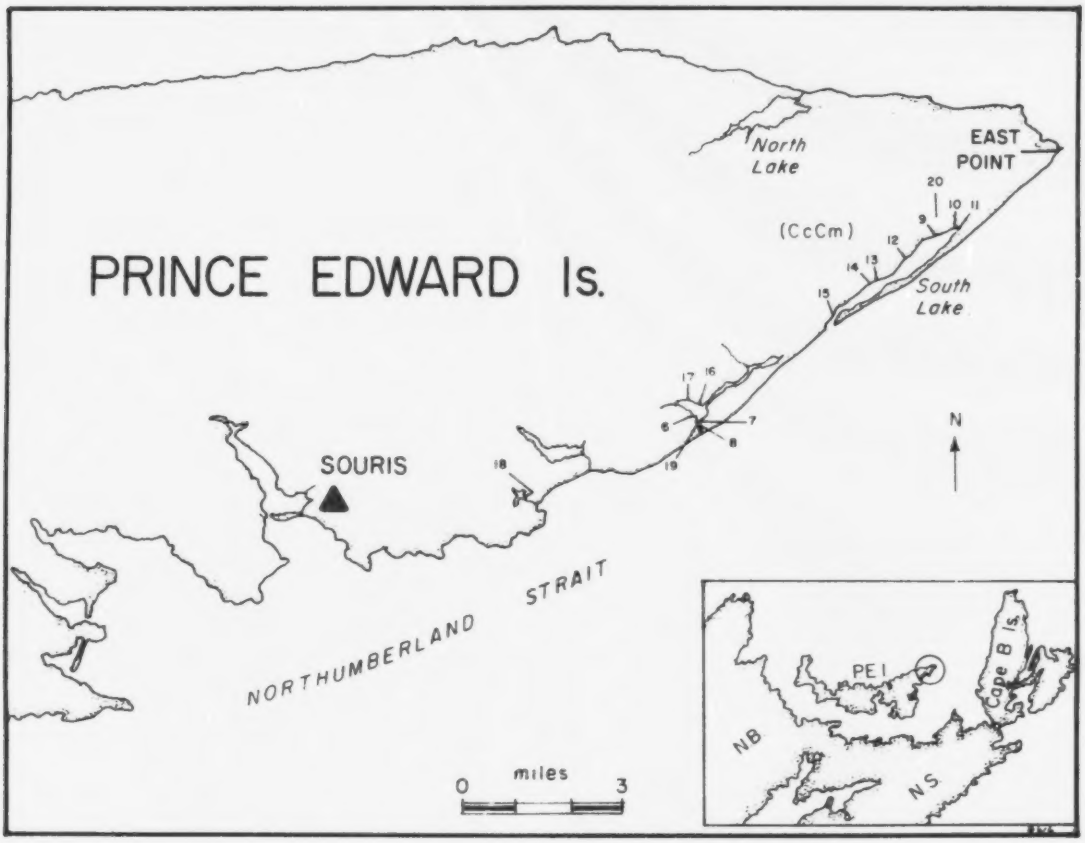

figure 1 Site locations in Prince Edward Island - 1980

Miles Site (CcCm-18)

Site CcCm-18 was the only prehistoric site located south of Basin Head. The site is situated on Little Harbour Pond at the southern outlet to Little Harbour Pond (fig. 2). Surface scatterings of artifactual material covering several acres were collected from a ploughed field overlooking Little Harbour Pond. At least 25-30 meters separate the present shoreline and the closest artifact concentrations. This suggests that at the time of occupation, the water level of the pond may have been higher (c. 50cm-1 meter in elevation). At present a coniferous stand borders the field, separating the site from the shoreline. Test excavations in this apparently undisturbed area did not reveal a trace of cultural material. Therefore, most, if not all of the site, lies in the ploughed field (fig. 2).

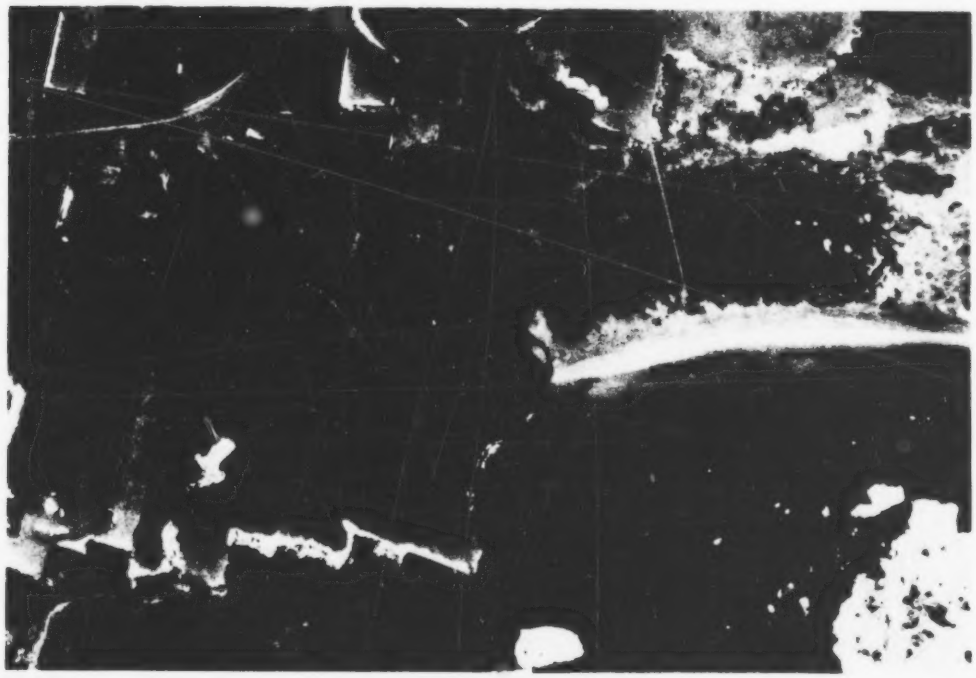

figure 2 Location of the Miles Site (CcCm-18)

Erosion does not appear to have been a problem as the site is well protected, facing inland. The gradually sloping beach area may offer some potential for waterlogged deposits. As mentioned earlier, the treed area between the site and the beach proved to be culturally sterile. Testing in the ploughed field, however, may yet reveal undisturbed deposits beneath the plough zone.

The substantial surface collection (269 specimens) is interesting both from the materials used and the kinds of implements. Split quartz pebble cores, scrapers, and flakes dominate the sample. Rhyolites and siliceous shales have been used selectively in the manufacture of bifacial tools. These finds (fig. 3), although seen in other site assemblages,

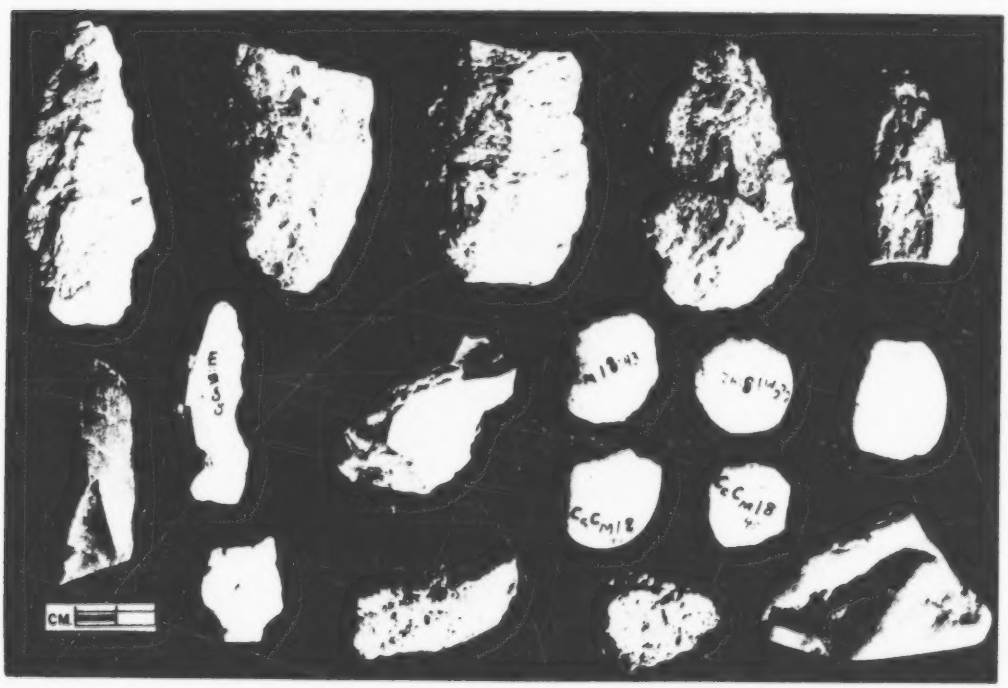

figure 3 Artifacts from Miles Site (CcCm-18)

do not appear to be typical of this area. Rather, similar finds come from northeastern New Brunswick, in particular siliceous shales and white quartz (cf. Keenlyside 1971). This material is not well dated as yet in New Brunswick but may be 'Archaic' related in age. Faunal remains or other organics were not preserved in the collection. The site's location facing Little Harbour Pond may indicate a primarily fishing camp. Certainly the kinds of tools found could easily function for this purpose. Like all sites in the region, proximity to rich land and water resources offers many reasons for habitation. Exploration of the estuary shoreline to the west of CcCm-18 did not uncover further sites. There were however, several localities which deserve further attention and should be tested. At the western end of Little Harbour Pond, the estuary constricts to form a narrow channel, offering excellent potential as a fish weir site. There were no surface indications of a site observed on either shore.

Basin Head Harbour

Basin Head forms a prominent elevated headland rising over 40 meters in elevation above the coast. The eastern slope of Basin Head and adjacent barrier beach complex is dissected by a narrow outlet channel from Basin Head lagoon. This has been a result of both natural erosion and dredging during this century (fig. 4).

A total of six prehistoric sites were identified at Basin Head (fig. 1). All are represented by surface collections; erosion and plowing would appear to have eliminated any remaining intact cultural deposits. A possible exception is CcCm-16 which lies along the northern shore of the harbour.

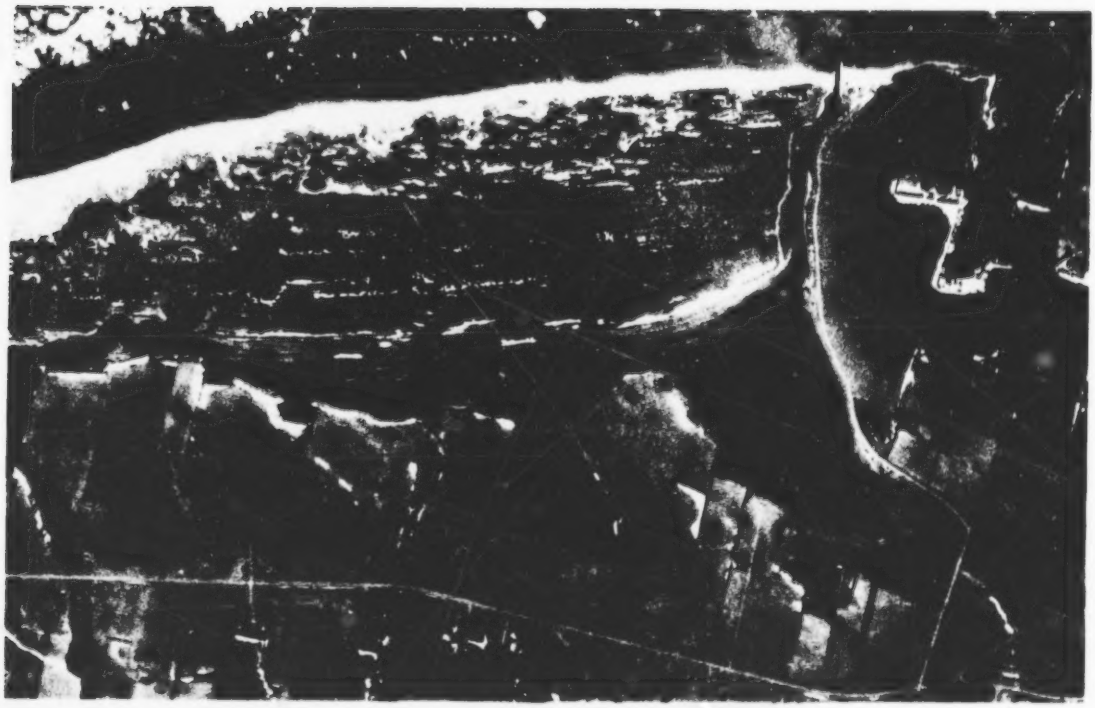

figure 4 Location of Basin Head

Surface detritus was collected along the western margin in a ploughed field. A portion of the site may extend into the treed area bordering the field and warrants further testing.

The outlet to Basin Head Harbour, although now changed in part at the outlet end of the channel through dredging activities, was an important area prehistorically. At least four sites lying along both sides of the narrow channel are recorded. In all likelihood, their close proximity reflects repeated single occupations through time. The beach along the east side of the channel produced the greatest concentrations of surface artifactual material. Wave action continually churns up new material -

artifacts which have long ago been eroded from their original context in the embankment along the channel. The western shore of the channel was less productive. However, this may be due to disturbances from the road construction above and activities associated with the fishing wharf at the northern end of the channel. It should be noted that a large proportion of the collections currently housed in the Fisheries Museum come from this area (Paquet: pers. comm.). Collections from these find localities are mixed and include a wide range of lithic materials. This is probably an indication of the long-time importance of this channel, possibly for fishing. In conjunction with this area, palaeo-ecological studies by Palmer (1974) on the dunes and lagoon sediments at Basin Head suggest formation of the dunes commencing about 2000 years ago. His date of 3370±135 B.P. (DAL 95) reflects " the earliest marine influence" (Ibid:vii) in the lagoon area. Assuming that the topography prior to this C^{14} date was altered to some degree from the present day, it is probable that most of the beach sites are more recent in age.

Based on what we currently understand of prehistory in the Gulf, the majority of archaeological finds temporally fall within the past two thousand years. Contemporaneous and earlier occupations can however be reasonably expected from higher elevations. Surface finds made over the past twenty years in this area by Island collectors have produced a wide range of artifacts - some having probable Palaeo-Indian cultural affiliations. A Clovis-like fluted point characteristic of this early time level (c. 10,500 B.P.) is reported by MacDonald from the Souris area (MacDonald 1968:124).

This important find is in the private collection of Dr. J. H. Maloney, Charlottetown, and was fourd in the field behind the Basin Head Fisheries Museum (Maloney: pers. comm.). A second point of this same general type was found at Basin Head by Arthur Gallant, Char'ottetown (Gallant: pers. comm.). Additional finds from the northeastern part of the Island which may pertain to this time period have been brought to my attention recently. Further field survey research will be required to document this material.

Exploration of the lagoon east of Basin Head did not produce any surface evidence of prehistoric occupations. The shoreline in this area was considerably wetter, narrower and in many places lacking any sand beach zone. Historic records indicate that the eastern end of the narrow lagoon was once open to the ocean (Palmer 1974:13). Former embayments such as this may have acted as traps for sediments, " transported by southwesterly flowing longshore currents. The sediment is supplied by erosion of the north shore headlands and is swept around East Point, which itself is contributing to the sediment supply." (Ibid:9). Additional careful scrutiny of this earlier outlet should be undertaken in the hopes of finding additional sites. This might require coring given the amount of sand dune buildup.

South Lake

The focus of our 1980 summer field season was South Lake, a long but narrow saltwater pond situated between the mainland and the high barrier beaches to the north of Basin Head. These lagoons are tidal and shallow, yet rich in marine life and shellfish. The numerous small freshwater

streams which feed South Lake give rise to brackish conditions. Local historical accounts are particularly rich in stories of bountiful waterfowl on the lake, especially during peak migration times.

Previous archaeological surveys in this area by Pearson (1962) and most recently by Paquet, have identified a number of sites along the mainland shore of South Lake, in each instance associated with fresh water streams. A total of seven (7) distinct sites are recorded on the lagoon. Although erosion of the lagoon shoreline is actively in progress, the protection afforded by the barrier beach has been sufficient to preserve considerably more cultural deposits than seen in many other more exposed areas on Prince Edward Island. Nevertheless, large 'chunks' of most of these sites have long since disappeared to rising water levels. Probably as great a destructive force is field cultivation. The absence of conservation measures such as contour ploughing has created extensive downcutting along the shorelines during periods of heavy rainfall. This downcutting forms wedges into the embankment resulting in large pieces of land breaking away. This erosional process is most evident where vegetation has been cut away at the shoreline edge.

In reference to Pearson's earlier work (Pearson 1962) it was not entirely clear in several instances from site descriptions precisely where sites were located along the shoreline. Consequently, in the accompanying site description forms, all sites were given new Borden numbers and noted as to their most likely correspondence to Pearson's sites where applicable. Because of the large samples of 'diagnostic' material in the Basin Head Museum (Paquet collection from South Lake)

a representative plate of specimens is included (fig. 5). The kinds of artifact styles and raw materials used in the manufacture of these implements dominate many of the site collections from across Prince Edward Island. Several sites on South Lake such as CcCm-10 and CcCm-12 represent major habitation sites - areas which represent repeated occupations over the past two to three thousand years at least, including early historic European settlements. In this latter regard, much more research into the early historic period on Prince Edward Island is needed. The considerable potential for very early European, (French or Basque) contact makes this region a prime location for such early settlements.

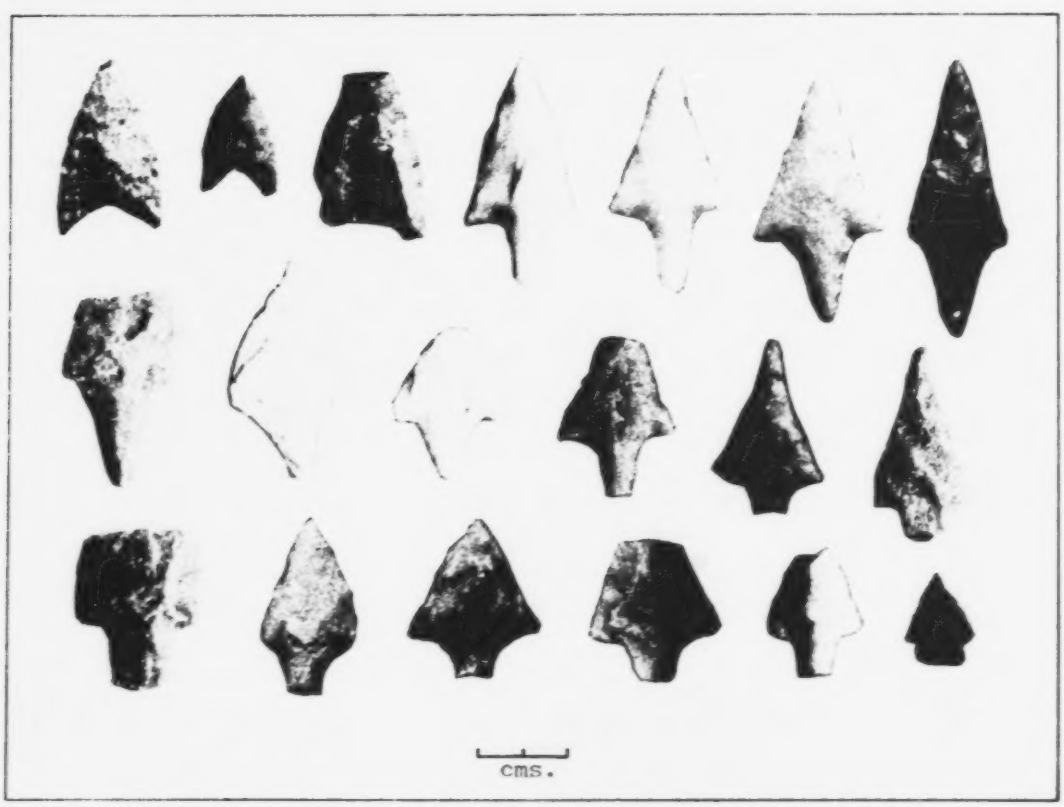

figure 5 Artifacts from Pacquet Collection, Basin Head area

All of the sites recorded on South Lake were tested either by small core-type holes or more extensive controlled excavation. Sites CcCm-10, 11, 13, 14 and 15 have little remaining intact cultural deposits. The most productive sites where extensive excavation was undertaken were CcCm-9 and CcCm-20. Site CcCm-20 appears to be totally undisturbed and after minor testing was left intact for future investigations.

CcCm-9 -- The Wakelin Site

The Wakelin Site (named after the owner) is situated on the mainland shore of South Lake approximately 4.5 km southwest of East Point. Eroded cultural material was surface collected along the beach including the inter-tidal zone, and in the fields to the southwest and northeast of a freshwater stream. This covered an area c. 150 meters in length by c.30 meters back from the shoreline embankment. The major concentrations were found close to the shore and bordering the banks of the stream. Archaeological material west of the stream is primarily disturbed, although remnants of a stratified profile were visible along the west side beach/ stream juncture. A recent road cut has removed most of what was likely a primarily undisturbed part of the site. The open field to the west of the stream was visibly rich in artifactual material on the surface but had been extensively cultivated to the depth of the cultural deposit. Testing along the forested west bank of the stream (likely undisturbed) produced little artifactual remains; however, the east bank proved more fruitful. An area extending c.30 meters along the shoreline and c.10 meters into the wooded area produced discrete concentrations of artifactual material.

Initially, numerous small test pits established the distribution of major activity areas - areas which were subsequently expanded (see site plan fig. 6). Horizontal and vertical datums provided control for the precise recording of artifact provenance and features. Although the site was extensively covered with second or third growth spruce, once the loose branches were removed additional clearing was not necessary. Excavation commenced with removal of the sod zone with shovels, followed by careful trowelling of natural and cultural levels to the sterile subsoil. All artifactual material, modified or unmodified (detritus) was plotted three dimensionally to establish the nature of artifact deposition and possible site activity areas. Floor plans were drawn at each occupation level and of all cultural features. Colour and black-and-white photographs document the excavation through its various stages.

The Soil Deposit

Four major horizons were recorded at CcCm-9. The uppermost sod (LH) horizon was essentially sterile. Two cultural zones were present beneath - their depths varied greatly. In places cultural Zone I was not present; in other parts of the site it was 5-10 cm in depth. Zone II was generally present across the site and appeared to represent the major occupation period at the site (maximum depth c.25 cm). Disturbance on the site was variable. Most areas close to the shoreline did not seem to be disturbed at all; further inland where the cultural zone became thinner there were some indications of cultivation.

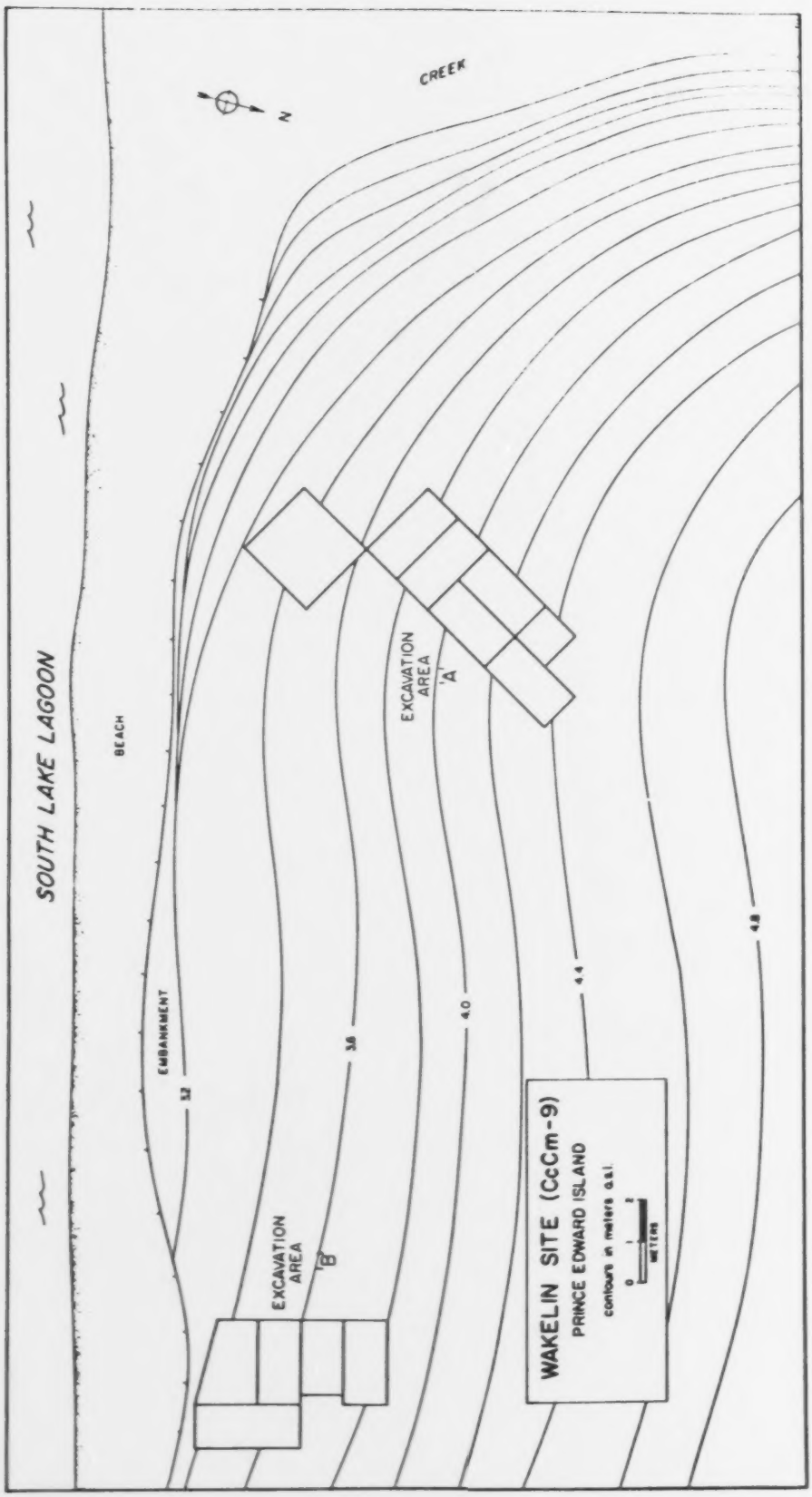

figure 6 Waklin Site (CcCm-9) Plan

Component I (fig. 7)

Component/Zone I: Only a small proportion of excavated specimens pertain to this component. On both material and typological grounds, the lithic implements are quite distinct from the underlying component. Implements are made chiefly of white quartz. The closest source presently known for this material is east coastal New Brunswick and is commonly associated with late prehistoric assemblages. Implements are few consisting of several biface fragments and three 'thumbnail' type end scrapers. A small quantity of waste detritus and several exhausted cores make up the remainder of the assemblage. It is interesting to note that the bulk of artifacts collected from the fields and along the beach are of quartz. This may indicate that the latest occupation of the site has suffered the most from erosion. Of course the upper soil horizons would be most subject to surface disturbance accounting for the most recent artifacts apparent

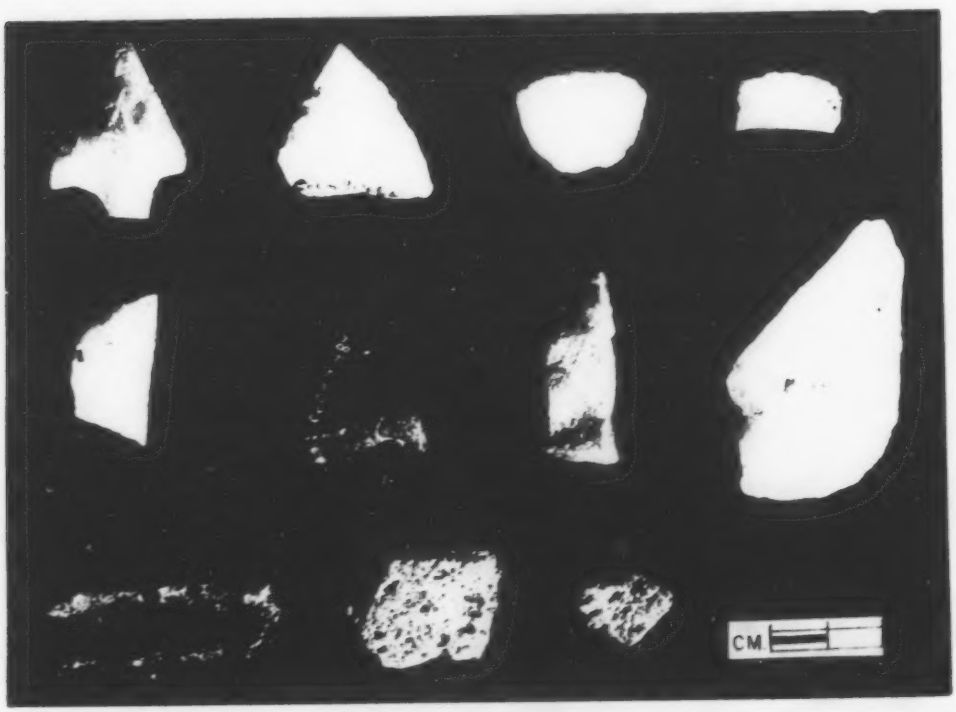

figure 7

in field surface collections. Another diagnostic aspect of this latest component was the ceramics. Fragmentary remains of two or possibly three vessels were excavated. These sherds are of a type common to late prehistoric sites in the Maritimes - porous, light-weight; one sherd has shell tempering (weathered/leached out). The fragments recovered consist of small rim sections and body sherds. Cord-wrapped stick decoration is present on several sherds, however most surfaces have simply been smoothed. Several of the rims have scarified interiors which is another diagnostic attribute of these late prehistoric ceramics. Other particularly interesting and, I believe, diagnostic finds, were two small modified nodules of red hematite. One specimen is multifaceted from use-wear as a pigment. Similar finds are reported from northern Nova Scotia associated with shell midden sites along the southern Northumberland Straits at Merigomish and Pictou Harbours. Wintemberg (1929:76) reports the occurrence of modules of " ferruginous argillite... probably to make red paint" in shellheaps A and D at Merigomish. The Cox/Swanson site near Pictou reported by Keenlyside (1980) also produced similar material. The same kinds of wear facets were also present. These sites all belong to the late prehistoric period. Radiocarbon dates from the Cox/Swanson site suggest an age of circa A.D. 800-1300.

Age and Cultural Affiliation

The presence of diagnostic late prehistoric elements in this Component I assemblage firmly places the site occupation after circa A.D. 800 and likely prior to c. A.D. 1400. Dated components with similar assemblages are

found in both Nova Scotia and New Brunswick. The Savoie Site in northeast New Brunswick is dated to A.D. 925 (Keenlyside and Keenlyside 1976). Sanger reports similar material from the Passamaquoddy Bay area of southern New Brunswick at the Carson Site. This site has a date of A.D. 1025 (S-510) (Sanger 1979). The previously mentioned Cox/Swanson site in north coastal Nova Scotia has two dates of A.D. 1110 (S-1603) and A.D. 1250 (S-1604) (Keenlyside 1980).

Summary

The absence of preserved faunal remains precludes the possibility of seasonality or subsistence data for this late prehistoric component. It is highly likely however, given the rich local marine/terrestrial resources, that this brief occupation represents a seasonal fishing, and/or hunting/gathering (shellfish and plants) station.

CcCm-9: Component II (fig. 8 - 11)

A striking characteristic of this primarily stone tool assemblage is the lack of diversity in both the kinds of tools represented and the range of raw material used. The major activity at the site appears to have been stone tool knapping and manufacture. Complete and incomplete implements were found plus a considerable amount of waste detritus and broken bifacial implements resulting from accidental breakage. Almost exclusive use was made of a buff-gray coloured quartzite. This rock can be found locally as pebbles on the barrier beaches.

Bifacial implements occur as stemmed and unstemmed forms. Unstemmed forms are both bi-pointed and tear-drop shaped. Many of the bifaces likely

would have functioned as spear points for lances and/or knives. Several of the smaller stemmed implements were probably tipped arrows, other stone implements are few, mainly consisting of unformed unifacially retouched tools. These are also fashioned of the same quartzite material.

Ceramics

The extremely poor preservation conditions afforded by the soil environment at CcCm-9 resulted in virtually no organic remains such as bone being recovered. Even the few ceramics excavated had virtually dissolved away and could not be removed intact. The best preserved fragments were those associated with a fire hearth. Of the half dozen sherds in the sample, two specimens exhibited surface decoration. Both are body sherds and are stamp decorated with a sinuous-edge tool, similar to a scallop shell. The decoration motif consists of closely spaced parallel lines. The paste temper is quite coarse and consists of feldspar and quartz grit. The light-coloured temper stands out on the surface against the buff/reddish-brown fired clay.

Other Finds

Except for wood charcoal samples from this component, the only other organic find was a very small fragment of burned bone or antler. Because of its size an interpretation of its function can only be speculative; however, it appears to be the tip of an antler or bone point, perhaps a tine flaker used in pressure flaking in the knapping process of stone tool-making. This interpretation certainly fits the other evidence for extensive lithic knapping activities.

Age and Cultural Affiliations

Unlike the late component at this site, the kinds of lithic implements in Component II are not reminiscent of other known assemblages currently in the Maritime literature of collections seen to date. Perhaps our best clue to the age of the component (subject to C-14 dating) comes from the ceramic material. Despite the small pieces found, similarly decorated pottery is quite distinctive of Middle Woodland related ceramics known from many parts of the Northeast including the Maritimes. This type of pottery dates from the first few centuries B.C. to ca. 300 years A.D. Sites in the Maritimes with dated components are found primarily in New Brunswick although I suspect this is simply a function of amount of field work done to date. The Oxbow site on the Miramichi system of northeastern New Brunswick has an early date of 690 B.C. (S-1605) associated with similar ceramics (Allen 1980). Turnbull's Old Mission Point site near Campbellton yielded a date of 80 B.C. (R.-343) on scallop-shell decorated pottery (Turnbull and Turnbull 1973). The Cap à l'Orignal site in Eastern Quebec has a date of A.D. 280 (no lab #) (Dumais 1978a) on " Pseudo-scalloped pottery" . On the basis of these three dates, an age estimation for the CcCm-9 ceramics of 300 B.C. - A.D. 300 seems most probable. A single charcoal sample directly associated with the Component II ceramic material is still in the process of being dated. The lithics in the assemblage appear to be more akin to materials coming from the north shore of the Gulf of St. Lawrence than elsewhere; however, this may be more apparent than real since Tuck and McGhee (1975) suggest an early Maritime Archaic (6000-7000 B.P.) age for their Labrador/Strait of Belle Isle materials. The several long-stemmed point forms from CcCm-9 (fig. 8 & 9) do appear

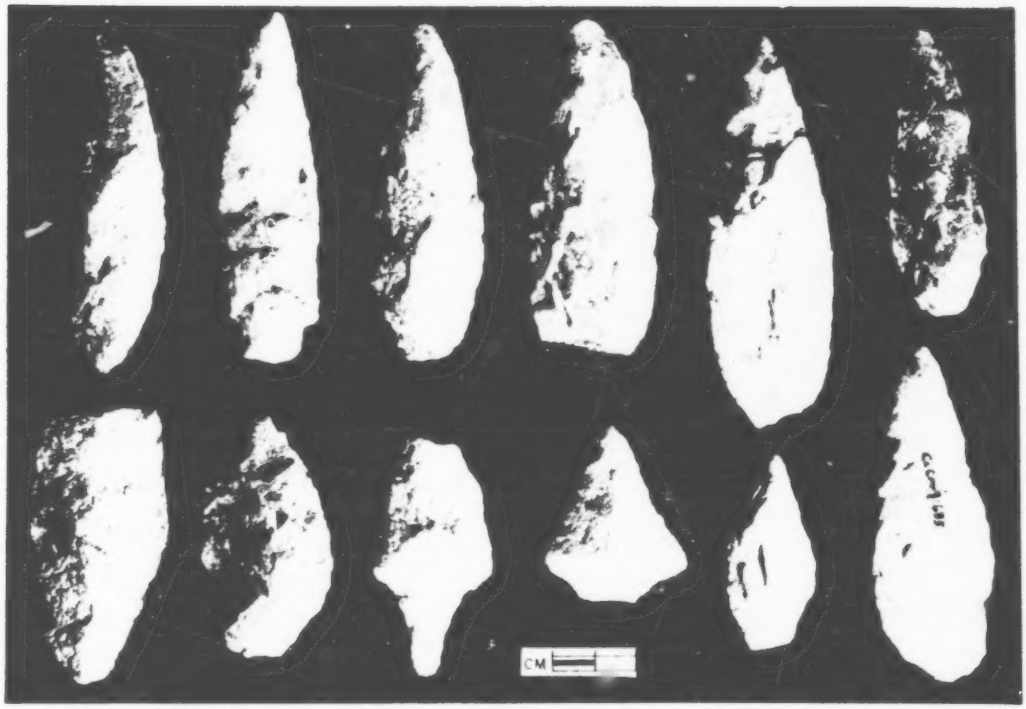

figure 8 Wakelin Site (CcCm-9)

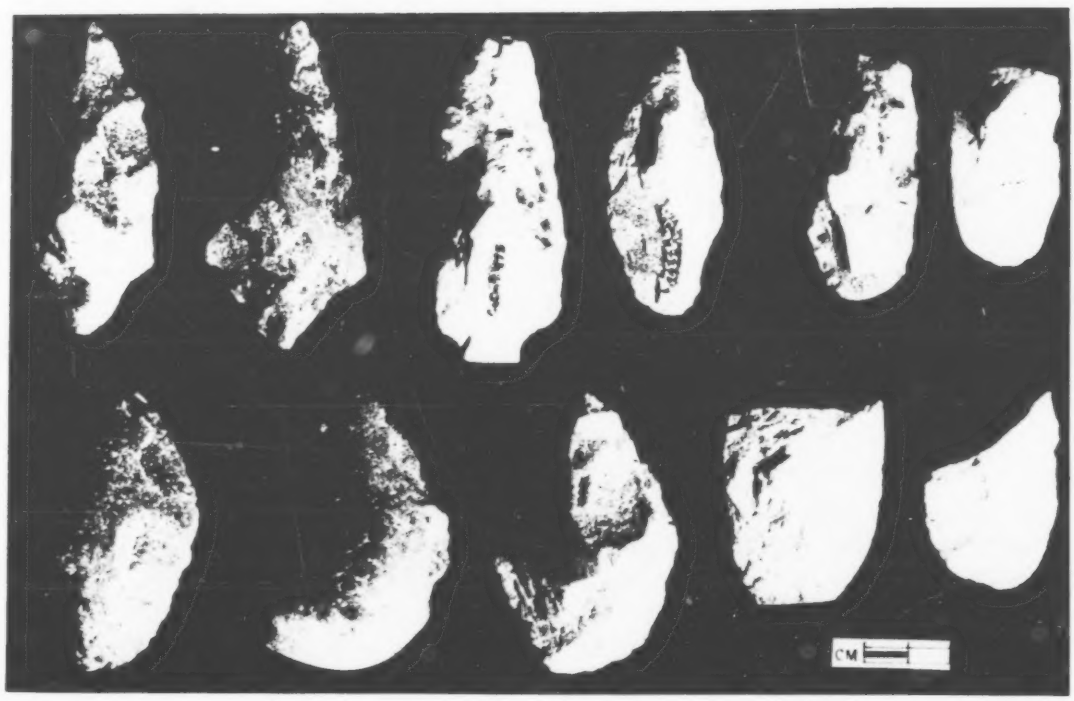

figure 9 Wakelin Site (CcCm-9)

figure 10 Wakelin Site (CcCm-9)

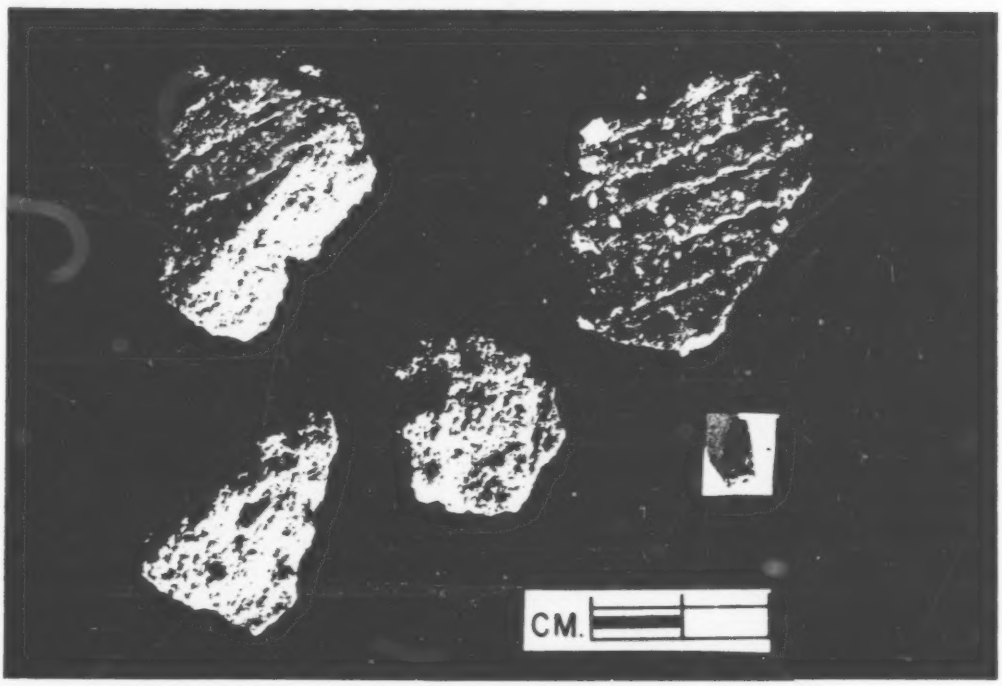

figure 11 Wakelin Site (CcCm-9)

occasionally in other parts of the Maritimes, but as yet have only been found in surface collections (Keenlyside and Keenlyside 1976).

Summary

Once again as in Component I, the absence of preserved faunal remains precludes the possibility of site seasonality or dietary information for the prehistoric occupants of the site. Tentative estimates based on a distinctive ceramic type, place the age of this occupation between 300 B.C. and A.D. 300. Like the later component at CcCm-9, this too was probably a brief encampment. The presence of considerable lithic detritus and associated evidence for stone tool manufacture suggest this as a major activity on the site ultimately associated with the hunting/food processing of game resources at South Lake.

The MacDonald Site (CcCm-12)

Approximately one km south along the South Lake shoreline from the Wakeline site, an important although partially disturbed site was identified (fig. 1). The physiographic situation of this site is like that found at the Wakeline site. The major part of the site lies just above the beach and is adjacent to a freshwater stream. Part of the Basin Head Fisheries Museum collection comes from this site (Paquet: pers. comm.). The site extends over a broad area, most of which is currently under potato cultivation. Slopewash has tended to erode the shoreline edge, but also to create an alluvial fan situation where sediments are being built up across the more level area around the site. Part of the importance of this site lies in the good

preservation of organic materials found in the cultural deposits. This was the only site seen with shell midden present. Judging from the amount of shell material deposited across the beach and well into the water, a considerable amount of the original shell midden has long since disappeared through attrition.

The Deposit (fig. 12)

The site extends over an area roughly 120 meters in length by 20 meters in width. Three concentrations of surface material were collected. Whether these all pertain to the same series of occupations is not known. The area in which our testing and excavations were concentrated lay close to the shoreline near the mouth of the fresh water stream. The shell midden was best defined in this area in content and depth of deposit. The maximum depth of deposits was about 50 cm. The soil profile consisted of a sod zone, underlain by 25-30 cm of disturbed plough zone. Beneath this intact cultural features such as pits and fire hearths were found. In one instance a virtually complete, although badly flattened and fragmented ceramic vessel was encountered.

Historic Component (fig. 13, 14)

A fascinating aspect of this site is the historic artifact assemblage. Although consisting of only several dozen fragmentary pieces, some idea of the time period and cultural affiliation could be gleaned from the data.

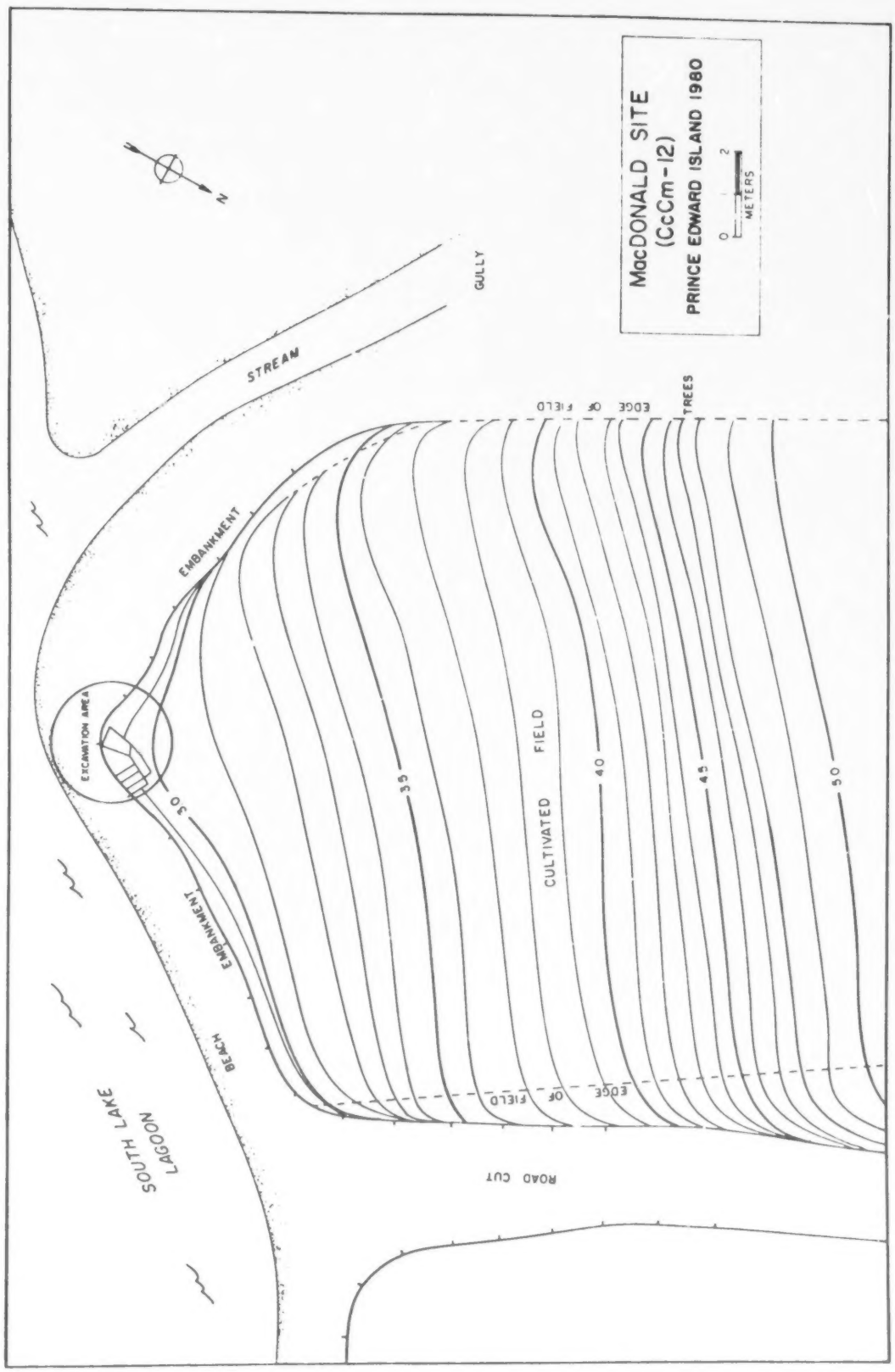

figure 12 MacDonald Site

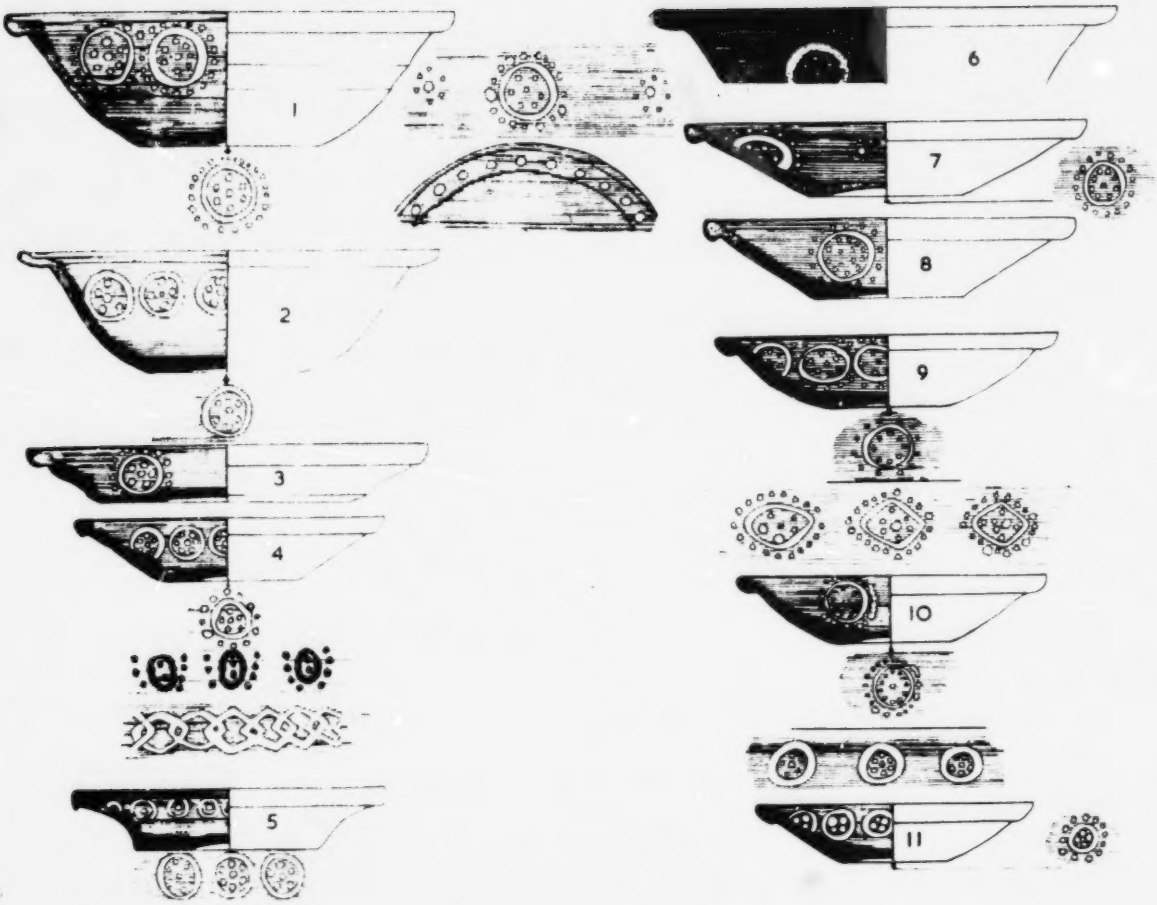

fig. 13: Variety of Saintonge style vessels from the Fortress of Louisbourg, N.S. similar to specimens from CcCm-12. (Courtesy Parks Canada).

Ceramics

A number of small ceramic pieces recovered have been examined by Parks Canada, Material Culture Research Section. G. Gusset kindly provided the following analysis of the Souris, CcCm-12 material:

> " Souris Material (coarse earthenware) - The material closely resembles some of the Saintonge (Charente Maritime, Middle western France) wares. Although generally green glazed, Saintonge wares are often covered with a clear yellowish white glaze decorated with brown slip. A common motif is the circle-and-dot (see samples from Louisbourg Fortress attached). Roughly, I can say that the shapes represented here are hollowares of the bowl or milk pan kind. Material of this type is common on large French occupation sites of the Mid-18th cent. See Fort Beauséjour, N.B., La Place Royale, Quebec; Louisbourg, N.S."

Glassware

Only one glass artifact was recovered from the CcCm-12 historic component. Fortunately, this was a diagnostic piece; a portion of the neck of a bottle. The glass is quite weathered, dark green in colour and has the appearance of what is often described as 'sick glass'. The surface of the glass looks almost gold plated.

Olive Jones (Parks Canada) has suggested several possible origins and dates of manufacture: English manufacture 1650's - 1670's; French contexts at Place Royale in Quebec City 1685-1759; possibly early-mid 18th century French manufacture.

The glass comes from a bottle type not unlike those referred to as 'Dutch Gin' bottles. The photograph (fig. 14) illustrates this type of glassware. The specimen was also submitted to the Corning Museum in New York for identification. Dr. Robert Brill of the Corning Museum of Glass writes,

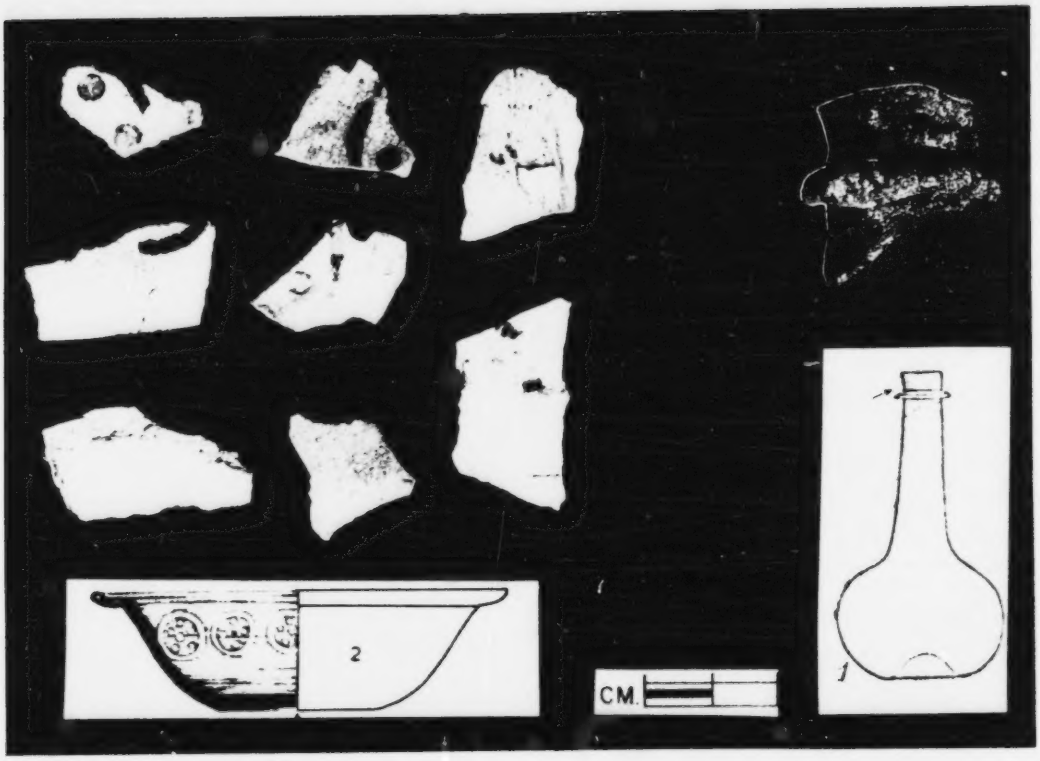

figure 14 MacDonald Site (CcCm-12)

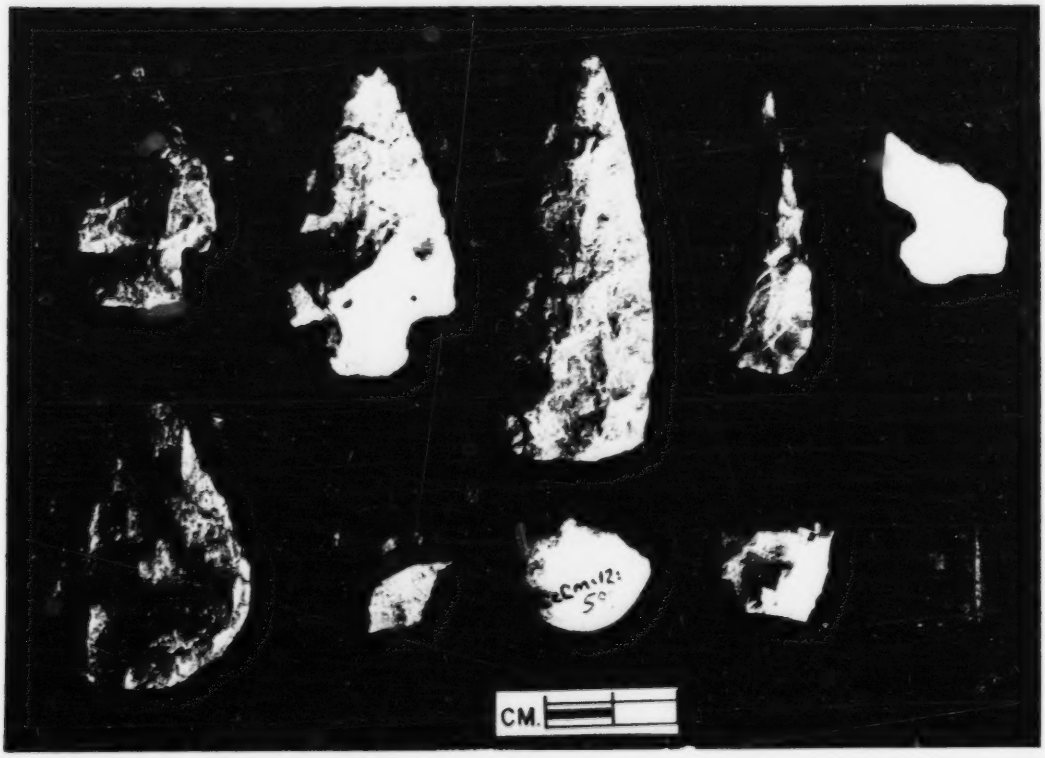

figure 15 MacDonald Site (CcCm-12)

> " I checked with Jane Spillman, our curator of American glass and she felt that the bottle might be dated fairly well on a stylistic basis. Enclosed you will find copies of pages from McKearins' book on American glass... the placement of the ring so low around the neck -- that is, low relative to the rim -- suggests that it most closely resembles Type I in the McKearins' classification. If that is so, and if the bottle is English, it would date from about 1650-1661. Actually the date could be verified much more satisfactorily if you have other fragments which give an indication of the bottle's overall profile."

Other Historic Artifacts

In addition to the ceramic earthenware and glassware, numerous pieces of badly decomposed iron (possibly nails) were recovered. These could not be identified as to age or cultural affiliation. A brass or copper boat nail was also found. Further research is required to offer any further interpretation. A small gun flint of English or French flint is of a type commonly found in wide use up until the late 1800's. A recent analysis of faunal remains excavated from the plough zone has identified the remains of Ovis sp. or sheep and possibly Bos sp. or cow. The domesticated species may have been transported from Europe or other areas such as Quebec or Nova Scotia.

Summary

The few, yet interesting historic remains, suggest use of the site during the period c.1650-1725. At least three possibilities are offered for the cultural identify of these people: 1) French, 2) English, or 3) Micmac. The use of domesticated animals suggests a preference for the first two possibilities.

CcCm-12 Prehistoric Component

The majority of the almost 700 artifacts recovered at CcCm-12 pertain to at least one prehistoric component at the site. This material is still in the process of analysis so that conclusions and interpretations at this point are only tentative.

Stone Implements (fig. 15)

The bulk of the recovered artifacts are of stone. Most specimens are detritus of a white quartz material. Finer grade crypto-crystallines (most likely of Bay of Fundy/Parrsboro-Blomidon origin) are present in small quantities. Most implements are fashioned of a comparatively coarse basalt or chert. Three small stemmed points found are typically late in the Maritimes sequence, possibly dating to the 1st millenium A.D. The small 'thumbnail' scrapers fit well into this time frame as well. The predominance of the white quartz material is reminiscent of the northeastern New Brunswick sequence where this material was extensively used during the late prehistoric period (c. A.D. 800-1200).

Ceramics (fig. 16, 17)

Portions of a number of vessels were present in the midden. In the undisturbed level at the base of the profile, an almost complete vessel was exposed. This vessel has been partially reconstructed (requiring extensive conservation) sufficient to provide an excellent basis for identification. The vessel is quite small (mouth diameter - c. 140 mm) and is of a simple conical-based jar form. The surface is extensively

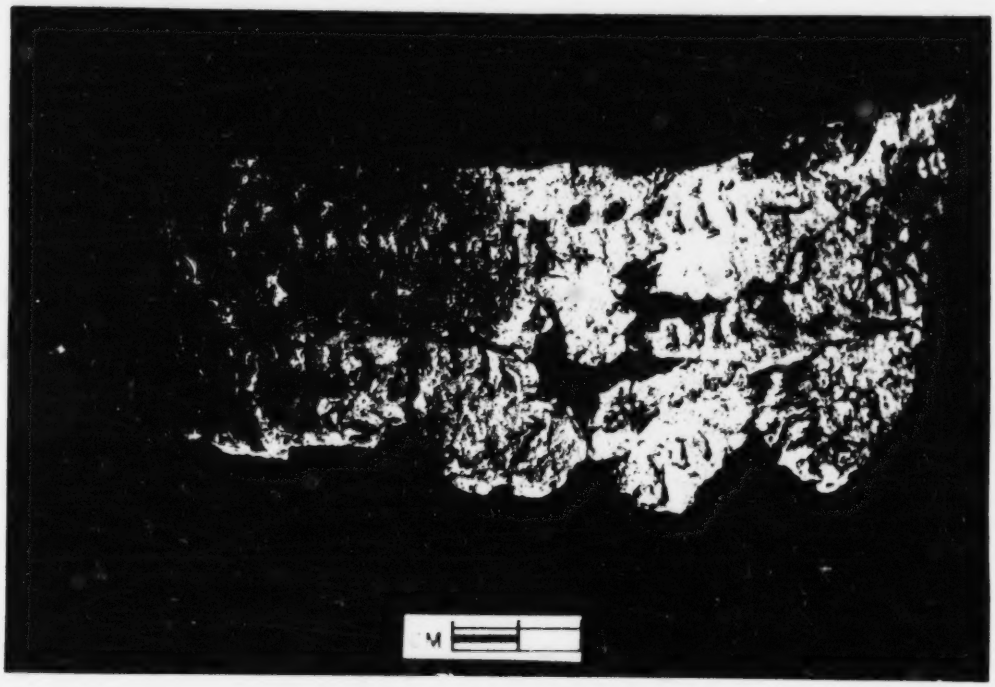

figure 15 MacDonald Site (CcCm-12)

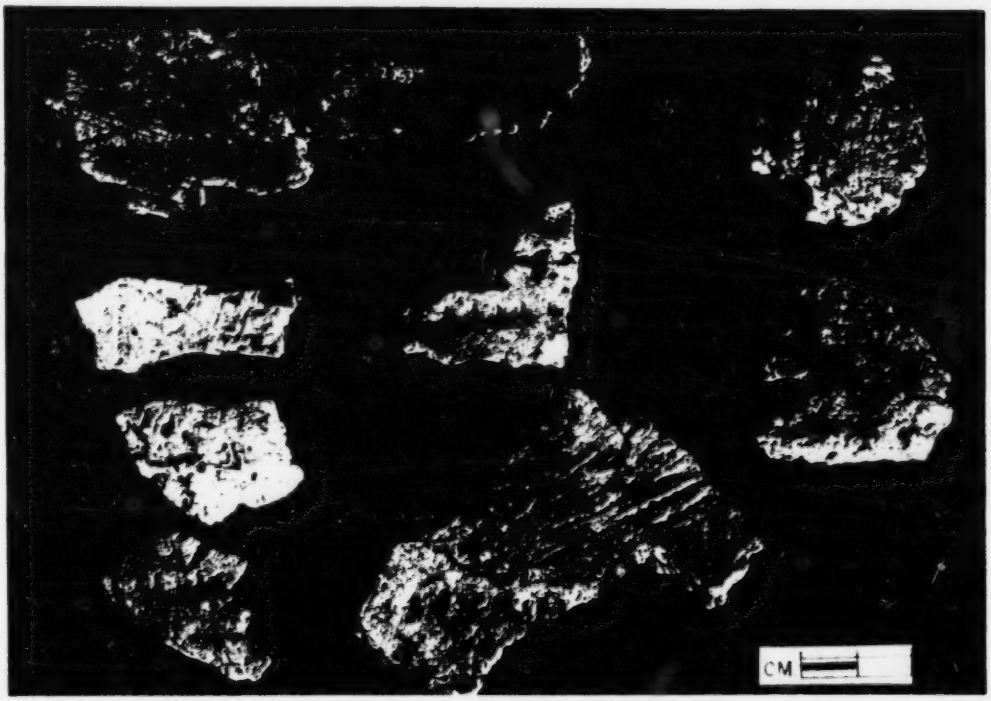

figure 17 MacDonald Site (CcCm-12)

figure 18 General view of excavations in progress at CcCm-12 MacDonald Site, 1980 field season.

decorated with cord-wrapped stick decoration in a motif of horizontal lines underlain by obliques. The rim is also decorated with cord-wrapped stick impressions. The vessel interior surface is scarified. This vessel type is very much like the ceramics seen at CcCm-9. Similar materials from the Maritimes region date to approximately A.D. 1000.

Subsistence

The analysis of the preserved faunal remains is only preliminary and considerably more research is needed to provide definite conclusions. We can nevertheless obtain a glimpse of a cross-section of the kinds of fauna on which these prehistoric peoples depended while living at South Lake. The following list of animal species identified by Steve Cumba, National Museum of Natural Sciences, Ottawa, is still tentative and will undoubtedly be expanded:

1. Seal (probably Harp and Bearded species represented)
2. Walrus
3. Salmon
4. Flounder (probably Sole)
5. American Eel
6. Beaver
7. possibly Caribou (Woodland)
8. Fox
9. Dog or Coyote (Large Canid sp.)
10. Duck sp.

The majority of bones identified were seal, most likely Bearded seal. The large and medium-sized land mammals appear to have been secondary in importance. Fish were only marginally represented; birds hardly at all. This emphasis may only reflect what was butchered at the site. Small game such as fish and birds may have been cleaned where caught. The faunal assemblage offers only a few surprises - the walrus and seal may have been taken in South Lake but more probably in deeper water, or perhaps along the barrier beaches, much like the early spring occurrence of seals this year (1981) in the Cavendish area. Caribou or coyote are not recorded from Prince Edward Island historically. Since the identifications are as yet tentative, conclusions at this point may be premature.

Summary

A preliminary examination of the CcCm-12 site artifact assemblage has identified two components. A thin veneer of historic material probably relates to a late 17th or early 18th century French or English occupation. The major component represents the only shell midden identified from South Lake and has provided our first look at the subsistence base of prehistoric people using this area. The prehistoric component at CcCm-12 is quite confidently dated on the basis of ceramics and lithics to c. A.D. 1000. Radiocarbon determinations from this site expected this summer should date this component as well as cross-date the less complete but similar late component from CcCm-9.

Conclusions

Although the results of our 1980 field season's archaeological field research are not as yet complete, analyses to date have identified a number of interesting prehistoric and early historic occupations of the Souris area. Fifteen archaeological sites were examined during the survey. At least twelve of these are reported for the first time. Detailed excavation at two sites CcCm-9 and CcCm-12 has produced assemblages which range in age from the early historic period, to c.1700-2000 years B.P. This time range appears to reflect the period of greatest cultural activity prior to major European settlement during the past two centuries. Perhaps the most important conclusion of our work is the contradiction of the current notion among archaeologists that Prince Edward Island's prehistoric heritage has been lost through agricultural and erosional activities. Our evidence indicates that the situation on Prince Edward Island is little different from the mainland. Sites are being eroded away daily at what appears to be an increasing rate due to rising sea levels. Nevertheless the partial protection afforded by the lagoon/saltwater estuary situations, has been sufficient to preserve many sites. The extent of local collections on various parts of the Island demonstrates not only the considerable degree of interest in prehistory, but also that the Island was extensively used for both seasonal and, I believe, year-round habitation in the past.

Recommendations

Based on the 1980 field results I am optimistic that considerable

important archaeological research on Prince Edward Island remains to be done. Complete documentation of existing archaeological collections on the Island is imperative before this information is lost. As an initial step in providing an inventory of prehistoric resources and sites, this material is invaluable. Assessing each area of coastal Prince Edward Island must be undertaken as soon as possible in an effort to record, if not save, those archaeological sites which are actively eroding. This holds true for the early historic sites as well as prehistoric. Given Prince Edward Island's central position in the Gulf of St. Lawrence basin, there is no question that, potentially, historic evidence from the earliest European contacts in the New World could conceivably be found. The report of at least several Early Man finds from the northeast part of the Island, probably dating to c. 10,000 years ago, offers potential for the full range of cultural manifestations seen in the Atlantic region.

Acknowledgements

The assistance of numerous people from the Souris area with our archaeological project is greatly appreciated. I am particularly indebted to Mr. Reagen Paquet, Curator of the Basin Head Museum, for his invaluable assistance with our research. His knowledge of the archaeology of the Basin Head area contributed substantially to the success of our first season of fieldwork. I am grateful to the residents and land owners of the South Lake. area for their permission to survey on their land, with special thanks to Mr. Clarence MacDonald and Mr. Everett Wakelin for their co-operation and interest in our archaeological work. I would also like to thank Mr. Nicolas

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